

What determines housing investment?

An investigation into the social, economic and political determinants of housing investment in four European countries.

Jacqueline Elizabeth Smith

Thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy at De Montfort University.

August 1996

Abstract

This thesis investigates the determinants of housing investment in four European countries: France, Germany the Netherlands and the UK. Comparisons are made between the four countries to explore how far differences in housing investment outcomes may stem from differences between the countries in the social, political and economic conditions relating to housing. It examines what factors determine housing investment *within* countries and *between* countries. Housing investment is a broad measure and it is acknowledged that a large number of factors are likely to affect it. Six hypotheses are put forward which examine the relationships between certain factors and housing investment. These factors are broad national aggregates (total investment, demographic growth, economic growth, size of housing stocks), governments, housing policies and structures of social housing provision.

An integrated methodological approach is adopted in this research which uses several complementary forms of analysis to investigate the different factors that might determine housing investment. Statistical analysis is used to examine the nature of the relationship between the broad national aggregates and housing investment. A qualitative policy-orientated form of analysis examines the effects of governments and housing policies on housing investment, and structures of housing provision analysis is used to investigate the effects of the institutional arrangements in social housing systems on housing investment.

The findings of this thesis confirm that housing investment is determined by a large range of factors. Significant statistical relationships are found between total investment, demographic growth, the size of the housing stock and housing investment. Governments and policy and structures of social housing provision are also shown to have some effect on housing investment. Differences are found in the factors that effect housing investment between countries and within countries. Explanatory factors are shown to have a combined effect on housing investment. This thesis distinguishes itself from much other comparative housing research in explaining a measured outcome. The research makes significant conclusions which deepen existing knowledge about what determines housing investment. It also makes an important contribution to existing comparative housing methodology in highlighting the value of utilising an integrated comparative approach.

Contents

	Page
Acknowledgements	v
List of Tables	vi
List of Figures	vii
Chapter 1: Introduction	1
1.1 Aims	1
1.2 Hypotheses	2
1.3 Method	6
1.4 Housing investment and its determinants	9
1.5 Links to other work	12
1.6 Methodological issues	14
1.7 Structure of the work	17
Chapter 2: Theoretical approaches to comparative housing research	20
2.1 Introduction	20
2.2 Economic theory	21
2.3 Government intervention, policy and housing investment	29
2.4 Structures of provision in housing analysis	38
2.5 Conclusion and methodological approach	42
Chapter 3: Housing investment in Europe	48
3.1 Introduction	48
3.2 Housing investment indicators	48
3.3 Housing investment data	54
3.4 Summary	60
Chapter 4: Broad national aggregates and housing investment: a statistical analysis	62
4.1 Introduction	62
4.2 Hypotheses for statistical testing and selection of variables	62

4.3	Statistical methodology	68
4.4	Bi-variate regression analysis	72
4.5	Multi-variate regression analysis	82
4.6	Housing investment and government expenditure	88
4.7	Conclusions	90

Chapter 5: Government and its effect on housing investment	95
5.1 Introduction	95
5.2 The welfare state and housing investment	95
5.3 The changing nature of government intervention	106
5.4 Housing investment and housing policy	109
5.5 Conclusions	134

Chapter 6: Structures of social housing provision	137
6.1 Introduction	137
6.2 Redefining structures of housing provision	137
6.3 Structures of provision, welfare state types and 'social' housing	139
6.4 What is social housing?	142
6.5 Social housing in France	143
6.6 Social housing in Germany	151
6.7 Social housing in the Netherlands	161
6.8 Social housing in the United Kingdom	170
6.9 Implications of structures of social housing provision for welfare state regime types	175
6.10 Concluding summary	178

Chapter 7: Do structures of social housing provision affect housing investment?	180
7.1 Introduction	180
7.2 Hypothesis and methodology	180
7.3 Indicators of social housing investment	181
7.4 How do levels of social housing investment compare between countries?	187
7.5 Does the rate of social housing investment significantly affect levels of total housing investment?	192

7.6	Do structures of provision in social housing affect social housing investment?	199
7.7	Can any conclusions be drawn about whether social housing structures of provision have a significant effect on housing investment levels in different countries?	213

Chapter 8: Conclusions: housing investment and comparative housing research		216
8.1	Introduction	216
8.2	Discussion of results: examination of hypotheses	216
8.3	Comparative summary of housing investment determinants	222
8.4	How can housing investment be increased?	225
8.5	Implications of findings for underlying theories and concepts	226
8.6	An integrated approach to comparative housing research	231
8.7	Housing investment and comparative housing research: concluding summary	233

Bibliography		236
Appendix 1: Data sets used in statistical analysis		247
Appendix 2: List of related publications		260

Acknowledgements

There are a number of people and organisations that I would like to thank who have provided help in the preparation of this work.

I would like to express my thanks initially to my supervisor, Michael Oxley, for his help, advice and encouragement throughout the period of working on this research. I am also grateful to Chris Hamnett who helped me considerably with the early development of this work, and to Peter King for reading and commenting on a draft of the thesis.

The work for this thesis is related to a wider research project which has been financed by Avebury Projects, Milton Keynes. Their support is gratefully acknowledged.

A large number of people throughout Europe have provided information and data that has enabled this work to be undertaken. I would like to express my gratitude to them all. The long list includes: Thierry Lacroix and colleagues at INSEE; Laurent Ghékiere and colleagues at UNFOHLM; Bruno Lefebvre, Université Paris; Laurence Bertrand, Laboratoire Logement; Franz Hubert, Freie Universität Berlin; Frau Imming, Frau Eipart and many colleagues at Statistisches Bundesamt; Dr Brenke and Markus Kelle at Bundesministerium, Bonn; Dr Bernd Bartholmai at Deutsches Institut für Wirtschaftsforschung; Mme Sirota and colleagues at Ministère du Logement; Patrick de la Morvonnais at Bureau d'Information et de Prévisions Economique; Sako Musterd, University of Amsterdam; Hugo Priemus, Peter Boelhouwer and colleagues at OTB, University of Delft; André Thomsen, University of Delft; Tineke Zuidervaat and Michael Tuvil at Nationale Woningraad, Almere; Drs. M van Oostrom and Rob Ligterink at Dutch Ministry of Housing; Mr H. Schippers and colleagues at Central Bureau of Statistics, Netherlands; Mr M. Nacinovic and colleagues at the European Commission; Brian Stewart at the DOE; Scottish Homes; and the Northern Ireland Housing Executive. Special thanks are due to those people who took time out to talk to me and provide information for this PhD on visits to France, Germany, and the Netherlands, and to those individuals who read through drafts of the text relating to France, Germany and the Netherlands.

Finally, I would like to express my thanks to my family, friends and colleagues who continued to give me support, listen to my moaning and keep me going during the past three years. In particular thanks go to: my Mum and Dad, Lesley, Graham, Peter, Caroline, Tracy, Catherine and David, Pat, Malcolm, Claire, MES 3, Knut, Bond, Holly, Sue, Push, Charlie, Helen and Sarah. I couldn't have done all the hard work without you!

List of Tables

	Page
Table 3.1: Repairs and renovations as a % of total housing output/investment	51
Table 3.2: Total stock increases and decreases, 1970-1992	59
Table 4.1: Housing investment and total investment	73
Table 4.2: Housing investment as a % of total investment, average, 1972-1992	73
Table 4.3: Housing investment and economic growth	76
Table 4.4: Housing investment and demographics	79
Table 4.5: Housing investment and the size of the dwelling stock	81
Table 4.6: A 'need' model of housing investment	84
Table 4.7: A 'need and growth' model of housing investment	86
Table 5.1: Dwellings completed by type of investor, 1970-1992	101
Table 5.2: Types of subsidy, relative significance, Netherlands, Germany, France, England, 1988	133
Table 7.1: Social housing construction, 1970-1992	188
Table 7.2: Social housing construction as a % of total housing construction, 1970-1992	189
Table 7.3: Social dwellings completed per 1000 population, 1970-1992	190

List of Figures

	Page
Figure 2.1: Government, state political system and society	32
Figure 2.2: An integrated methodology for investigating housing investment	45
Figure 3.1: GFCF in residential buildings as a % of GDP	55
Figure 3.2: Dwellings completed per 1000 inhabitants	56
Figure 3.3: Net additions to stock per 1000 inhabitants	57
Figure 5.1: GFCF in residential buildings as a % of GDP, 1955-1992	103
Figure 5.2: GFCF in residential buildings as a % of GDP, UK	111
Figure 5.3: Dwellings completed per 1000 inhabitants, UK	112
Figure 5.4: GFCF in residential buildings as a % of GDP, France	116
Figure 5.5: Dwellings completed per 1000 inhabitants, France	117
Figure 5.6: GFCF in residential buildings as a % of GDP, Germany	121
Figure 5.7: Dwellings completed per 1000 inhabitants, Germany	122
Figure 5.8: GFCF in residential buildings as a % of GDP, Netherlands	126
Figure 5.9: Dwellings completed per 1000 inhabitants, Netherlands	127
Figure 6.1: Social housing finance system, France	147
Figure 6.2: Structure of social housing landlords, Germany	153
Figure 6.3: Social housing finance system, Germany	158
Figure 6.4: Social housing finance system, Netherlands	166
Figure 6.5: Social housing finance system, UK	173
Figure 7.1: Social housing investment and housing investment, France, 1970-1992	193
Figure 7.2: Social housing investment and housing investment, Germany, 1970-1992	194
Figure 7.3: Social housing investment and housing investment, Netherlands, 1970-1992	195
Figure 7.4: Social housing investment and housing investment, UK, 1970-1992	196

Chapter 1: Introduction

1.1 Aims

This study aims to discover what determines housing investment. It examines social, economic and political determinants of housing investment in four European countries: France, Germany¹, the Netherlands and the UK. By examining a number of possible determinants it seeks to provide some explanations for differences within countries and differences between countries. The time period for which this will be examined is 1970 to 1992. In finding explanations for differences in housing investment between countries a further aim is to discover whether this information can be used to suggest ways of influencing or increasing housing investment.

While this study is examining determinants of housing investment, it is also using a comparative methodology. Comparisons are made between four European countries with the aim of explaining differences in housing investment outcomes that may stem from differences between the countries in the social, political and economic conditions relating to housing. By undertaking a comparative study the following objectives can be met:

- 1) to discover what factors determine housing investment in each country over a period of time, and what factors have determined changes in housing investment levels within countries;
- 2) to discover whether there are common or contrasting determinants of housing investment when comparisons between countries are made;
- 3) to discover what factors determine differences in levels of housing investment between countries.

This comparative analysis improves understanding of housing investment indicators and of what determines housing investment.

A further aim stems from the methodological approach being adopted in this comparative analysis. A wide range of social, economic and political factors are likely to play a determining role in housing investment outcomes. Finding an existing and sufficiently broad methodological approach to encompass all these factors is particularly difficult. This work has therefore attempted to develop an integrated methodological approach to comparative housing

¹All information and data for Germany refers to the pre-1990 territory of the Federal Republic of Germany, unless otherwise stated .

research through its investigation of housing investment determinants. This approach is discussed in Section 1.3.

1.2 Hypotheses

In examining possible determinants of housing investment a number of hypotheses have been formulated. These hypotheses are examined quantitatively or qualitatively in the course of the research. The methods adopted for the examination and testing of the hypotheses are discussed more fully in the next section.

Six hypotheses have been investigated in relation to housing investment. These are outlined and discussed below. Each of these hypotheses are about the determination of and differences in housing investment. It might be argued that within each hypothesis the separate sentences can be interpreted as two separate hypotheses. This thesis, however, treats the assertions in each sentence of the stated hypotheses as so closely linked that they may be legitimately examined together.

Hypothesis 1: Housing investment levels are a function of overall investment levels in a country. Differences in housing investment between countries can be explained by differences in total investment levels.

Housing investment is part of total investment in an economy. Differing levels of housing investment may therefore be associated, alongside other forms of investment such as manufacturing investment, with levels of total investment. A higher level of housing investment in one country may therefore be due to the fact that this country has a high investment economy. In addition changes in housing investment levels during a certain time period may be a reflection of changing levels of total investment. This hypothesis therefore presupposes that housing investment is determined by factors which determine levels of overall investment. If this were the case an investigation of housing investment would largely be an investigation of determinants of investment generally. The emphasis of the research would shift from a 'housing study' to an 'investment study'. There is a well-developed body of literature on the determinants of investment and this would then provide the foundations for the study. Given that housing investment is, ipso facto, part of overall investment it would be extremely surprising if there was no connection between the two. Testing this hypothesis can determine the extent of this connection.

Hypothesis 2: Housing investment levels are related to rates of economic growth in a country. Different levels of housing investment are therefore due to differences in rates of economic growth.

It might be argued that different rates of economic growth determine different levels of housing investment. An economy with high rates of economic growth may have more resources available for investment and investment in housing. Higher growth of output in an economy might be expected to generate additional demand and higher real incomes and thus boost housing demand and generate additional resources from which the demand might be met. Economic growth might thus be expected to result in additions to housing investment.

Hypothesis 3: Housing investment levels can be explained by demographic factors. Different rates of demographic growth in different countries result in different levels of housing investment.

Differences in housing investment levels between countries or within countries over time may be partly explained by different and/or changing rates of demographic growth. As a population grows or the number of households increases it might be reasonably expected that the demand and/or the need for dwellings will also increase. Housing demand might be defined as the quantity of housing that a household can 'afford', or that a household is able and willing to purchase. Housing need might be defined as a measure of the quantity of housing required to ensure that all households have accommodation of an agreed minimum standard. Housing need is therefore, not linked to a household's ability to pay, but is equal to the number of separate households in a country². As the demand for dwellings or need for dwellings increases it might be expected that, with certain time lags, there will be an increase in housing investment. This may be through an increase in private sector production in response to increasing demand, or as a governmental response to increases in need. Consequently, lower rates of housing investment may be partly explained by lower rates of population growth or household formation.

There have been significant demographic changes throughout Europe in the past two decades that have affected household formation. Demographic growth and high rates of household formation have been particularly significant. This has been partly due to an increasing number of one person households in Europe which in turn is related to a high rate of marriage

²These are simplified definitions used here to distinguish between demand and need. There is considerable debate about how demand and, in particular, need should be defined. See, for example, Bramley (1990); Whitehead (1991); Whitehead and Kleinman (1992); Hancock (1993).

breakdown and young people leaving home earlier. In addition there have been significant movements of people within Europe. This has led in some countries to high rates of net immigration and greater levels of housing need. The increase in immigration and movement of peoples has been particularly high since the opening of borders with eastern Europe and the reunification of Germany. While these latter events took place at the end of the time period being examined, some effects may be apparent.

Hypothesis 4: Levels of housing investment are influenced by the size of the dwelling stock in a country. Differences between countries can be explained by relative housing stock sizes.

Housing investment levels may be partly determined by the size of the existing dwelling stocks in different countries. The size of the existing stock might be a reflection of the level of demand and need for new dwellings. Thus, a country with a large dwelling stock relative to its population might have lower levels of need for new investment, compared with a country with a relatively small dwelling stock. The size of the dwelling stock in a country might also be taken as a reflection of past housing investment levels in a country. Thus we might expect that a country that has historically invested large amounts in housing might have a large dwelling stock and lower levels of need for investment.

Hypothesis 5: Government and housing policies have a direct effect on housing investment levels. Differences in housing investment between countries are a reflection of differing forms of government intervention in housing.

Governments and policy decisions potentially have significant consequences for housing investment. Government intervention in housing may take many different forms. These may be a consequence of the way in which the 'housing system' has been established, the attitude of government towards the welfare state and provision, or the types and forms of housing policy instruments and measures used. Different choices in respect to all of these factors, both historically and through current housing policies, may lead to different housing investment levels in different countries. Both between countries and over time within countries, housing policies may have direct effects on housing investment levels. Other government policies, such as economic policy, might also have an effect on housing and housing investment.

Hypothesis 6: Housing investment levels are influenced by the structures of provision in social housing systems. Different structures of social housing provision in different countries result in different housing investment outcomes.

The overall support for social rented housing in a country may affect levels of housing investment by the way in which its structures of provision have been established. This may include, for example, the influence of different management, finance and institutional arrangements within social housing systems; the influence of welfare state development in the establishment of current structures; the influence of varied public/private responsibilities and the overall level of government involvement, control and commitment to the social housing sector. The effects of these structures of provision might be more significant in some countries than in others or differences within social housing systems may result in differences in housing investment levels. The effects of differences in structures of social housing provision can be examined over time within countries and also between countries.

This hypothesis is related specifically to the social housing sector. In making distinctions in housing investment between different housing sectors rather than housing investment overall, some points may be considered. These relate to whether overall investment remains at the same level regardless of which sector it is targeted, or whether one sector may have incentives or institutional arrangements that mean it is able to attract investment that would not otherwise have been devoted to the housing sector. For example, an increase in social housing investment may be compensated by a decrease in private sector investment and so on. An important consideration is thus, whether more favourable arrangements for social housing in a country result in more social housing investment which *displaces* other housing investment, or results in an *addition* to total housing investment. Some consideration of this issue will be undertaken in the examination of this hypothesis.

Some further comments can be made in respect to the above hypotheses. Hypothesis two examines the effect of economic growth on housing investment. There may be numerous other economic factors that also influence housing investment. These might include interest rates, consumption patterns and the effects of booms and slumps, the relationship between house prices and real disposable income, real house price inflation and so on. The statistical analysis in this thesis, which includes economic factors, is not intended to be a comprehensive study of economic determinants, but tests specific hypotheses and specific economic variables. Economic growth was chosen as an effective indicator of economic performance which could be used in comparative statistical testing and for which data was available.

Additionally, in respect to hypothesis three, a variety of other demographic variables might affect housing investment as well as population and household growth. These might include, for example, the age structure of the population, the birth rate, the divorce rate and so on. Population growth and the rate of household formation might, however, be considered to be

the demographic variables which have the greatest and most direct effect on housing investment. In particular these factors lend themselves more easily to statistical analysis. An additional issue to be considered in relation to the demographic variables is that of cause and effect. The hypothesis above implies that the level of housing investment may be influenced by the rate of growth in the population or in household formation. However, it may also be argued that the growth in the number of households may be influenced by housing production levels and the number of available dwellings. It might be argued, for instance, that a household may not be 'formed' unless it has a dwelling to go to. Thus, it might be the case that a lack in the supply of dwellings discourages household formation, while the availability of dwellings encourages household formation. The cause and effect relationship between these two sets of factors is complex. While this situation is acknowledged it is the original hypothesis, stating that housing investment is influenced by demographic growth, which will be tested.

1.3 Method

1.3.1 Comparative housing research

Comparative housing research broadly describes the approach adopted in this study of the determinants of housing investment. Comparative housing research has become increasingly popular in recent years and has grown to cover many different aspects of housing and has adopted many different methodological approaches. Comparative international studies have grown out of an interest in discovering and investigating what is happening in other countries with respect to housing. There are various aims of this type of research. Some studies may be descriptive and intended to broadly increase knowledge, others more analytical exploring differences and similarities, and others more applied to see if lessons can be learnt from experience in other countries. A fuller discussion of the aims and methods of comparative housing research can be found in Oxley (1991).

There is a growing amount of literature examining the nature of and approaches to comparative housing research. For example, Harloe and Martens (1984) reviewed existing comparative housing research distinguishing between policy-orientated approaches and structures of provision approaches. Much comparative housing research falls into these broad categories. For example, work by Dickens et al (1985) and Barlow and Duncan (1992, 1995) have emphasised an approach which examines market/state mixes and institutional arrangements in making comparisons between housing systems. Together with Ambrose's work on the Housing Provision Chain (Ambrose, 1991) and Ball's 'structures of housing

provision' (Ball, 1988), these approaches emphasise the role of structures, agents and institutions in housing provision as a framework for undertaking international comparisons.

Much of the 'structures of provision' work contrasts with research that is policy-orientated which tends to examine specific areas of policy in different countries, provide descriptive accounts of different housing policies, or attempts to use information from different countries to make housing policy suggestions in another country. This policy orientated approach can be seen in the work of Donnison and Ungerson (1982), Hallett (1988, 1993) and Boelhouwer and Heijden (1992). Other studies have made comparisons between countries using statistical methods to ascertain relationships between broad national aggregates. For example, Burns and Grebler (1977) examined determinants of housing investment, and Schmidt (1989) examined the degree to which European housing policies and housing markets are converging, both using statistical analysis. Many of the different approaches to comparative housing research are discussed more fully in chapter two.

Much comparative housing research focuses on a particular housing issue and makes comparisons between certain European countries. This includes Emms (1990) study which concentrated on social housing in Europe, Hallett's studies that have focused on housing and land policies (1988), and housing affordability (1993) within Europe; studies by Harloe (1985) who examined private rented housing in Europe and the USA, and more recently, social housing in the same countries (1995); and work by Kemeny (1995) who examined tenure distinctions in European rental markets. Some studies have made cross-country policy comparisons, for example, McCrone and Stephens (1995) examined housing policy in Britain and Europe. At another level, comparative research into housing examines the housing systems in different countries at a national level. This includes, for example, a comparison of housing systems in the UK and the USA by Karn and Wolman (1992), and comparisons of seven European national housing systems by Boelhouwer and Heijden (1992).

All of these studies vary in their disciplinary approach. Some studies do not relate to any specific discipline and may lack a firm theoretical foundation; others have the foundation of one particular discipline. The approach being adopted in this work is drawn from several forms of analysis and is discussed below.

1.3.2 Housing investment and an integrated approach to comparative housing research

Housing investment will be affected by a wide range of social, economic and political factors. The factors outlined in the hypotheses above reflect this diversity. A number of different forms of analysis have therefore been used to investigate these factors and hypotheses. An aim of this

research is to develop an integrated approach to comparative housing research using these different forms of analysis. The methods used for investigating each hypothesis are now discussed.

The first four hypotheses, which examine macro-economic, demographic and housing stock indicators, will be tested statistically. The underlying theory in these first four hypotheses is that these broad national aggregates (total investment, economic growth, demographic growth and the size of the dwelling stock), influence variously, productive capacity, demand and need. Econometric modelling will be used to examine the extent of the relationship of these factors to housing investment. There are obvious limitations to a statistical analysis in comparative housing research. There may be problems of definition and comparability of statistical data. There will also, however, be limitations in the degree to which data can be qualified. While statistics can provide an absolute level of a particular variable at a particular time there may be specific factors present in each country, for example, that could also affect the result of the testing which are not examined. These might include, for example, past and existing conditions in the stock, the types and forms of dwellings built, together with general prevailing economic and political conditions in a country. Statistical testing may be able to establish whether a relationship exists between certain factors and housing investment. While this may tend to support given hypotheses there will almost inevitably be 'unexplained' residuals from this analysis.

Hypothesis five examines government and policy effects on housing investment. This hypothesis is examined primarily following a 'policy orientated' approach to comparative housing research. This approach can take into account the broader housing system, economic and political effects in each country and their combined impact on housing investment. The possibility of examining this hypothesis using a quantitative approach was, however, considered. In respect to this the testing of a variable which might be taken to 'represent' government commitment to housing is reported along with the other statistical analysis in chapter four. Using the policy based and more historical form of qualitative analysis in addition to this to investigate the effects of government and policy on housing investment can complement findings from the statistical analysis of economic and demographic factors.

Finally, the examination of hypothesis six relating to systems of social housing provision and their effect on housing investment, will use a 'structures of provision' approach to comparative housing research. While some policy details relating to the social housing sector may be examined within hypothesis five, this approach will allow a more detailed investigation of the structures of provision in this sector and how differences in the housing system itself might affect housing investment. The structures of provision approach can provide a detailed insight

into the types and forms of agents and institutions responsible for providing housing and their social relations, which would not be provided in other forms of analysis. In this work a 'structures of provision' approach is defined as an examination of the institutional arrangements in social housing, focusing particularly on financial and managerial arrangements and the social relations between them. A more detailed discussion of the factors being included in the structures of provision approach will be made at the beginning of chapter six and in chapter seven, where this hypothesis is investigated.

It might be argued that several methodological approaches are being utilised in this work. The statistical analysis taking a quantitative approach to examine the effects of broad aggregates and the policy based and structures of provision based analyses adopting a more qualitative approach. Each of these approaches can be seen to be adding something unique and they are therefore complementary. The quantitative analysis, as discussed, can establish whether a statistical relationship exists between factors, but is limited in its ability to qualify those relationships. Used alone this could provide only a partial view of what determines housing investment. The more qualitative analysis can go much further in discussing a broad range of factors and their effect on housing investment.

Each of the approaches from a statistical analysis of broad aggregates, to policy, to structures of provision provides more depth and detail of the social, economic and political conditions surrounding housing investment and its determinants. By following this pattern of analysis each approach builds on and adds to earlier findings. The development of this pattern can therefore provide an integrated approach to comparative housing research, acknowledging the benefits of exploring several approaches and their joint contribution to a fuller analysis of housing investment. This methodological framework is expanded, with the aid of a diagram, in chapter two.

1.4 Housing investment and its determinants

Housing investment increases the quantity and/or quality of the housing stock. This means that either new dwellings are built or improvements are made to the existing stock, or both. Housing investment expenditure is targeted to the production or improvement of dwellings rather than other housing expenditures which may be targeted on the consumption of housing. Detailed definitions of housing investment indicators that will be used in this study are given in chapter three.

Ongoing housing investment in a country is important for a number of reasons. Levels of housing investment in a country are reflected in the *quantity* of dwellings in relation to the size

of the population, or number of households. Housing investment therefore has implications for the ability of a nation's housing stock to meet changes in demand or need, and to deal effectively with problems such as homelessness and housing shortages. Commitment to housing investment is also reflected in the *quality* and condition of the existing housing stock. Arguments for more housing investment to create additional dwellings or make improvements to existing dwellings can be advanced not just in terms of the direct consequences for housing standards, but also in terms of the positive effect on educational standards and health (see Ineichen, 1993; Arblaster and Hawtin, 1994). The long term benefits of better housing are likely to be very significant indeed. Housing conditions are ultimately a function of the resources that go into the fabric of the stock. Significant problems can clearly be associated with low levels of housing investment.

The 'quantity' and 'quality' of any nation's housing stock are highly correlated with its past levels of housing investment. Significant improvements to both the quantity and quality of dwellings can only be made in a country if there is a commitment to housing investment. By investigating potential determinants of housing investment it may be possible to ascertain ways of increasing housing investment in a country.

The choice of hypotheses for examination in this work has been restricted in part by the broad range and scope of the study. There must be limits to the number of factors that can be examined as potential housing investment determinants in an extensive comparative analysis such as this. The hypotheses that have been put forward for discussion have been selected because,

- a) theory suggests that they may have a significant effect on housing investment;
- b) there are some established links between the factor and housing investment that can be built on;
- c) these factors have not been examined specifically in relation to housing investment levels in a comparative study, and this research can therefore provide an original contribution to existing knowledge.

Some brief comments must, nevertheless, be made in respect to other potential determinants of housing investment not being examined in detail here. It is acknowledged that those possible determinants of housing investment detailed in the hypotheses are not an exhaustive list. Housing investment is a very broad phenomenon. To investigate all of its possible determinants would be beyond the scope of this study. It is clear that other possible determinants will exist.

For example, building costs and regulations, land costs and the land market process in different countries may have an effect on levels of housing investment. High building and land costs may act as a barrier to housing investment. Additionally, land market processes and land supply and pricing policies may be more favourable to housing production in one country than in another. These factors are, however, extremely complex to compare between countries. To find comparable information to determine effects in four countries would be extremely difficult. Other work has attempted to compare the effects of building costs and land costs on housing production in three countries, Germany, the Netherlands and the UK (Golland, 1995). Oxley and Smith (1995a), following a brief analysis of these factors concluded that, "It is highly probable that differences in policy approaches in the provision of housing land between countries have a significant impact on housing investment" (ibid., p25). The complexity of comparing these factors does not allow conclusions beyond this here.

In terms of specific sectors, this study has examined the financial and institutional arrangements for social rented housing. Similar arrangements for owner-occupied housing and private rented housing could also have been examined. The variations in the operation of these sectors and their contributions to investment may well be significant. A further study would be necessary to do justice to the potential explanation of housing investment differences which would arise from examining these sectors in detail.

The private housing finance market and its institutional arrangements might be expected to have some effect on housing investment levels. For example, "The UK has a set of financing arrangements and financial institutions which have been very effective at promoting house purchase and funding the advance of owner occupation. Much of the funding provided by building societies and banks has, however, promoted house exchange, movement within the stock, and the transfer of housing from rental to owner occupation. This has only indirectly helped to promote investment in new housing" (ibid., p33). By comparison other countries may have lending institutions that encourage more specifically building and investment in new dwellings. A system such as this might also be expected to result in higher levels of housing investment.

The structure of the private rental sector may also have consequences for housing investment levels. "A variety of factors have combined to make private rented housing a better investment in other countries than in the UK. These factors have related both to the revenue from, and the costs of the investment." (ibid., p60). Some points concerning finance markets and policies relating to private housing production are made in chapter five, but have not been examined in detail in this study.

Other factors, not examined, that may affect housing investment levels relate to levels of government debt. Levels of housing investment may be related to levels of government debt or the wealth of a country. This is because the level of debt may constrain public expenditure and this restraint may have an adverse effect on housing investment. A country with high levels of debt may, therefore, have lower levels of housing investment. Although a specific hypothesis has not been formulated in respect to this factor later analysis does explore the relationship between housing investment levels and the need to cut public expenditure levels.

The factors discussed above have received consideration during the course of this research work, but will not be investigated further. Factors identified but not investigated have been rejected largely because of problems in making comparisons. There are undoubtedly other possible determinants of housing investment that have not been mentioned.

A further important point in choosing possible determinants and examining these in four countries is that it is not necessarily anticipated that housing investment will be determined by *common* factors in each country. In some respects it would be surprising if this was the case. Each country being examined has different social, economic, political and cultural conditions. These different conditions might be expected to be reflected in differences in the way that housing investment is determined. Structural or institutional conditions that might lead increases in economic growth to result in higher levels of housing investment in one country might, for example, have no effect in another country. This study has attempted to take a wide range of potential determinants with the aim of being able to account, to some extent, for some of these national differences.

This issue also brings into question the applicability of results. It is clear that where conditions and determinants that increase housing investment are specific to one country, it may not be possible, practical or worthwhile to discuss their application in another country. Attempting to put forward what might be termed a universally applicable explanation of housing investment is, however, not an aim of this research. It is more specifically to investigate what determines differences in housing investment, and thereby provide a greater understanding of this important measure.

1.5 Links to other work

This research has links to other work carried out in the housing field and in comparative housing research. Some of these studies have been mentioned above and will be discussed in later chapters. Many of these have a particular relevance to this study. Boelhouwer and

Heijden's (1992) study of housing systems and policies and Papa's (1992) study of housing finance systems both made comparisons between seven European countries. Their analyses of the operations of housing systems and the countries which were examined are particularly relevant to this work. Many comparative studies have examined the social housing sector in a number of European countries, which links in with the later focus in this work on social housing systems. These studies include Emms (1990), Power (1993) and Harloe (1995). Some comparative housing research has been significant for this research in terms of methodology. This is particularly true of the work done by Ball et al (1988), Dickens et al (1985) and Harloe and Martens (1985), on the application of a 'structures of provision' approach, and also studies which have incorporated this approach with an historical analysis of the welfare state and the role of government, such as Lundqvist (1992) and Harloe (1995).

There is a much smaller body of literature that has examined housing investment. While housing investment is often discussed within other studies there are few that focus specifically on its determinants or significance. There are several works that examine general investment and discuss, within this, housing investment. These include Harvey's examination of investment in the built environment (1989), Ball and Wood's study of building investment (1994), Hillebrandt's study of investment in industrial and commercial building (1974) and Easton's investigation of interest rates and investment (1990). Kleinman et al (1990) put forward a number of different models for examining the determinants of local authorities' capital expenditure on housing. While there are some links between this work and Kleinman et al's article relating to demographic and policy based determinants, the models examined at the local level do not hold much relevance to a national comparative study such as this. One study by Burns and Grebler (1977) attempted to test theories of housing investment on an international comparative basis. This study covered thirty-nine countries and three main factors (GDP per head, population growth and urbanisation) to try to explain housing investment. Its scope in terms of the number of countries studied and the fact that it was broadly a statistical analysis, was acknowledged by the authors to limit its results (some of the conclusions from this study are noted in chapter two).

While this work has links to Burns and Grebler's study and the other research work mentioned it is unique in a number of ways. It provides a detailed and thorough examination of housing investment in a comparison of four European countries, which has not been done previously. Additionally, this thesis uses a newly developed integrated methodological approach to comparative housing research. This study builds on and adds to existing work on housing and comparative research. The focus of the study and its methodological approach both, however, provide a new and original contribution to existing knowledge.

1.6 Methodological issues

1.6.1 Problems in comparative housing research

Methodological problems are a common factor of all international comparative housing research. Making comparisons between elements of housing systems across a number of countries involves many difficulties. Each country will clearly have different social, economic, political and cultural conditions. In housing this will be reflected in varying structural and institutional arrangements in the provision and consumption of housing. Housing systems will be organised and operated differently in each country. For comparative housing research, problems will therefore arise in terms of what is being compared. An element of the housing system in one country may not exist in another. If this same element does exist it may be of a different type or form, have different aims, objectives and operate in different ways. Under these conditions, where it is difficult to compare 'like' with 'like', very careful definitions and quantification must be used to overcome potential problems. This is true of qualitative and quantitative information. Defining what is being compared is the key to worthwhile comparative housing research. Definitions can establish differences and/or similarities and form a basis for analysis.

Problems may also arise in comparative housing research in terms of what is being achieved and the approach being taken. Some housing studies claim to be comparative in that they discuss housing issues in a number of different countries. In some of these cases, however, their strictly 'comparative' nature may be questioned. Ball et al (1988) have been criticised for inconsistency of approach (Oxley, 1989). Others (such as Hallett, 1988) have been reproached for falling into the trap of putting a collection of papers together from many countries and calling it a comparative study, or for making long descriptions with little analysis and not stating achievable aims (or not achieving stated aims!) (see Oxley, 1991).

It might be argued that differences within countries and problems in undertaking comparative housing research are so great that cross-country comparisons are not worthwhile or useful. This is not necessarily the case. Some problems may prevent work from being undertaken - this may be the case where there is limited availability of information or where there is not enough research money to go on that trip to Greece. However, significant differences between countries do not render investigation fruitless. Where significant differences do exist it does mean that careful quantification and definition is necessary. It means difficulties must be acknowledged and limitations accepted. Some might argue that making broad generalisations under these conditions cannot be justified. However, this is largely dependent on what the

comparisons are aiming to achieve. Aims may need to be adjusted where differences between countries appear to limit the scope of the study.

Many problems in structure and method in comparative work can be overcome by a clear statement of authors' aims, objectives and methodological approach. There can be many types of comparative housing research, achieving different things and using different methodologies, but these must be considered, stated, and utilised in the course of the work.

1.6.2 Problems in this work

The scope and range of this study has presented several methodological problems. An initial problem encountered in connection with the statistical testing was the comparability of data across the four countries. In most cases the data utilised for testing was compiled at an international level by organisations such as the United Nations. Data compiled by international organisations has been favoured because there is greater probability of similar criteria being met for comparisons. Even where these sources are used questions can arise regarding the exact nature of what is included in data. In some cases it was necessary to investigate beyond general definitions and compare specific items in the data. Where information was insufficient or gaps existed in data, national sources were used to supplement international sources. Problems of comparability exist particularly when using data compiled by different countries. To help to overcome this, clear definitions have been presented and discussed in this study where any data is being directly compared.

A large quantity of information sources, particularly from France and Germany, were available only in the original language. Translations of this material have been carried out by the author where necessary. However, some items do not readily translate in simple terms from one language and one national context to another.

Problems that arose in respect to the qualitative material are largely concerned with definitions. As discussed in the above section, it has been important to qualify many aspects of what is being compared. Where comparisons have been made between housing institutions, structures in the systems of provision or specific tenure types, attention has been given to defining these elements.

Further problems arose where housing investment has been analysed alongside policy change or structural differences. Using this type of analysis it would be easy to make generalised conclusions from specific and sometimes isolated situations. There has, thus, been a careful attempt to avoid this.

There are significant problems associated with both the broad nature of this research and the integrated methodology adopted. There are a number of factors which together culminate in acknowledged difficulties. Firstly, any investigation of a measure such as housing investment is difficult because of the large number of factors affecting it. As this study will show, housing investment is determined by a significant range of factors. While this work is not attempting to explain all determinants of housing investment, even limiting the study to the six hypotheses listed above is a large task. This task is also broadened by making a comparative study of four countries. As well as encountering the problems of comparative housing research discussed above it is possible that housing investment may be determined by different factors in different countries (this was discussed further in section 1.4, above).

Finally, difficulties are apparent in attempting to delineate the effects of any one factor at any one time. There may often be a cumulative and combined effect caused by a number of factors together. It could also be argued that using these different approaches leads to a simplification of the analyses and results. While limits must be accepted because a large range of factors and issues are being considered, every attempt has been made to prevent over-simplification and unsubstantiated generalisations. Limits to conclusions are clearly stated where appropriate.

Taking into consideration all of these issues may lead some to criticise the validity of such a study. While this work is clearly ambitious this does not refute its value or worth. The aims, structure and methodology have been clearly stated and employed throughout the course of the work. While a number of approaches have been utilised and a number of countries examined, the focus on housing investment and its determinants has been retained. This has allowed significant and original results and conclusions to be formulated.

1.6.3 Information

Various methods of data and literature collation have been used to provide a body of information for this research. Statistics from European and international organisations have been used to compare a number of housing indicators at an aggregate national level. A number of housing indicators were taken from the United Nations Economic Commission for Europe, 'Annual Bulletin of Housing and Building Statistics' (United Nations, 1993), to compare housing investment levels and the number of dwellings constructed. A publication that has been produced and updated annually for the past three years in conjunction with EU housing ministers' meetings, 'Statistics on Housing in the EU', (European Commission, 1994) has also been a useful source of European wide data on a large number of indicators.

Other sources such as the OECD National Accounts, the IMF, the World Bank and various Eurostat publications were used to compare a number of housing expenditure and macro-economic indicators (e.g. OECD, 1992, 1993; World Bank, 1991; Eurostat, 1992; IMF, 1991). Data has been collected for EU countries to enable comparisons to be made of, for example, growth of GDP, GDP per head, government expenditure, and population and household growth.

To supplement this data from international organisations, contacts have been established with various national government departments, institutions and organisations concerned with housing to get fuller country based information. Letters were written to the national statistics departments and national banks in France, Germany, Netherlands and the UK for information on housing finance, subsidies, construction and investment levels and information was received. In addition, communications were established with housing ministries, housing divisions within statistics departments, research institutions concerned with housing, other academics working within the European housing field and relevant housing bodies, such as organisations representing social housing providers. Contacts and information sources have also been established through the European Network for Housing Research and other Europe wide housing bodies such as CECODHAS, which is a European pressure group for social housing.

A number of 'fieldwork' visits have also been made to follow up initial contacts. A field trip to the Netherlands was undertaken in March 1993 when visits were made to the housing ministry, various social housing bodies and specific social housing projects. In September 1993 more extensive visits were made to France and Germany, involving interviews at government departments and with researchers, and the collection of data and information from libraries and individuals. From these visits a significant quantity of official documents and information published within specific organisations was accumulated. Much of this material was only available in the original language and to make use of this information translations have therefore been carried out by the author.

1.7 Structure of the work

There are several stages in this work which represent parts within the integrated methodological framework. In chapter two a review is made of differing theoretical approaches to comparative housing research. This chapter aims to examine potentially useful methods for this research and explains and discusses their application. It also examines existing literature and studies that have used different approaches to comparative housing research,

analyses their value and expands on the links to this research. This chapter therefore provides theoretical background and puts the methodological framework for this study in context.

Chapter three provides a detailed examination of housing investment measures. It discusses alternative housing investment indicators and provides definitions. It describes the trends in these housing investment indicators in France, Germany, the Netherlands and the UK during the period 1970 to 1992. This chapter therefore gives a factual background to housing investment indicators and differences in their levels between countries.

The rest of the thesis is divided broadly between the three progressive stages in the examination and analysis of housing investment determinants. In chapter four statistical testing of potential macro-economic, demographic and housing stock determinants of housing investment is undertaken. Being the first stage in the integrated approach, this testing provides evidence of statistical relationships between broad national aggregates, as possible determinants, and the housing investment indicators.

In chapter five a closer examination is made within and between countries of the influence of government on housing investment outcomes. The development of the welfare state, the role of government intervention and the effect of policy decisions on housing and housing investment are discussed and analysed. An examination of housing policy and housing investment levels during the period 1970 to 1992 in each country is undertaken. Some conclusions are made regarding the effects of government and policy on housing investment.

Chapter six and chapter seven provide together an analysis of the structures of social housing provision and their effects on housing investment. Two chapters are necessary for this level of analysis, although this is not intended to indicate a weighting of the importance of this approach. Exploring structures of provision in one housing sector necessitates detailed and structured information on the nature and organisation of the systems of social housing provision. These are provided for the four countries in chapter six. Chapter seven then goes on to analyse this information in relation to levels of social housing investment and overall housing investment in each country. It provides detailed discussion of the problems of defining and comparing levels of social housing investment and examines trends in social housing investment indicators within and between countries in relation to their structures of social housing provision. It then makes conclusions about the effect of social housing systems and social housing investment on total housing investment.

In chapter eight conclusions are presented. Conclusions are presented on the determinants of housing investment. Results from the examination of each hypothesis are discussed and

brought together. Conclusions are also made relating to the integrated approach adopted in this comparative housing research. In the light of the results of the different analyses the methodological framework is re-evaluated and the value of each approach presented. The value of using this approach for investigating housing investment determinants is also discussed. The concluding chapter will also address several questions which arise from, and exemplify the significance of, the results. These include, 'Can this information be used to advise on how to increase housing investment?' and, 'What have the results of examining the hypotheses contributed to existing knowledge about housing investment and comparative housing research?'.

Chapter 2: Theoretical approaches to comparative housing research

2.1 Introduction

This chapter will discuss and review some examples of the many and varied theoretical approaches to comparative housing research. In making such a review the relative merits and relevance of the different approaches in respect to this study of housing investment can be determined. The theories being advanced in this chapter are therefore being examined to see how far they can contribute towards a framework for comparing housing investment in different countries.

Some of the growing literature on comparative housing research was identified in chapter one. Some of these studies have specifically discussed the methodological and theoretical approach being adopted. However, while each particular approach is suggested to be the most suitable or useful for the study being undertaken, there is often a tendency for authors to justify the exclusion of other approaches which may in fact be able to contribute to analysis and understanding. Some studies claim in their introductions to be adopting one particular approach, but then fail to maintain this during the course of their analysis. Many of these studies will be examined in detail below.

This work aims to differ from the studies discussed above by attempting to 'integrate' a number of approaches to comparative research which can all be seen to be contributing to an analysis of housing. Housing studies is a field that belongs to no one discipline. It is part of and is affected by, for example, economics, sociology, geography and politics. If all of these areas can affect housing then its analysis will benefit from a theoretical approach that acknowledges all of their influences.

While uni-disciplinary approaches to housing studies can contribute to knowledge, and are thus valuable, to obtain a full explanation or understanding of some housing issues there are advantages of integration. It is therefore an aim of this work to conceptualise an integrated theoretical framework as a basis of comparative housing research. Such a framework can benefit an analysis of housing investment which is clearly affected by a broad range of factors.

The rest of this chapter will explore a number of the studies and theoretical approaches mentioned above and introduce the methodological approach to be adopted in this study.

The different approaches will be examined in three broad categories that can be identified in comparative housing research at the European level. The first will look at economic theories, their application to housing and housing investment and examine the use of broad national aggregates to make statistical comparisons. It will therefore set out the background for the econometric models and statistical testing to be carried out in chapter four.

Secondly, the role of government in housing will be examined. The rise of state and government intervention and the growth of the welfare state will be examined. In particular the types and forms of intervention that are open to governments to influence housing through policies and structures will be investigated. The relevance of theories of government intervention for housing investment will be discussed. Other policy based studies will be examined.

Finally, the 'structures of provision' approach to comparative housing research, which looks at the institutional arrangements and agencies in housing provision, will be examined. Studies taking this approach will be explored. This final section will, in particular, examine the role of social housing systems and their relevance to housing investment.

2.2 Economic theory

Economic factors have a significant impact on housing, both through, for example, cycles of boom or slump, or through governments' policies that change the economic position of housing in some way. In this section the aim is to examine how these factors can theoretically affect housing; and in particular how they affect housing investment. The objective is to enable the formulation of a framework under which comparisons between housing investment levels on a European scale can be used to undertake econometric testing.

Economic theory provides many different explanations for investment and the factors that determine its outcome. Some of these will be reviewed here to establish connections with housing investment. The measures of housing investment that will be examined are defined in chapter three. Economic theories of investment concentrate, however, on the measure of Gross Fixed Capital Formation (and GFCF in residential buildings), and this measure will be the focus in discussions of economic theory below.

Theories of the determinants of investment include, for example, the capital accumulation model, the accelerator principle and the capital stock adjustment model. Other factors that might provide explanations for (housing) investment include economic building cycles,

economic growth, demographic factors, interest rates, profitability, uncertainty and economic policies. A number of these are often not tested in direct relation to housing investment, but concentrate more on investment generally or more often manufacturing industry. Nevertheless, it will be useful to consider the extent of their effect on housing investment.

Harvey (1989), using a Marxist analysis of the circulation of capital under capitalism, describes the investment process in relation to the built environment as forming a cyclical model of accumulation. In his work on the 'Urban process under capitalism' (ibid., pp59-89), Harvey summarises Marx's circulation of capital and theory of accumulation by characterising three separate 'circuits': the primary, secondary and tertiary circuits of capital. In his analysis, investment, that is the formation of fixed capital and the consumption fund, takes place in the secondary circuit of capital. The formation of fixed capital and the consumption fund contain items that are used as 'aids' to the production and consumption processes (that form a physical framework for production and consumption), and some items that may be described as 'direct inputs' into the processes. For example, within the consumption fund Harvey cites 'houses' as making up part of the 'physical framework for consumption', while other items for direct consumption include consumer durables, such as stoves, washing machines etc. (ibid., p64). Within Harvey's categorisation it is the former, 'aids' to production and consumption, that make up investment in the built environment and which are relevant to this study.

Harvey argues that in the primary circuit the drive of the capitalist to utilise labour power and the work process to produce profit and surplus value through production and consumption, leads to over-accumulation. This may manifest itself in over-production, lower profits, surplus capital or surplus labour. The state of over-accumulation leads into the secondary circuit of capital. The tendency to surplus labour and capital from current production and consumption provides an opportunity for capital flows into the formation of fixed capital and the consumption fund (i.e. from the primary to the secondary circuit). Harvey notes that in practice capitalists tend to over-invest in the primary circuit and under-invest in the secondary circuit because of the 'barriers' encountered in the switching of capital flows.

This issue is particularly important in the built environment because "investments tend to be large-scale and long-lasting, often difficult to price in the ordinary way, and in many cases open to collective use by all individual capitalists" (ibid., p65). A prerequisite to enable the capital flows to take place is therefore the existence of what Harvey calls "fictitious capital" (ibid., p65), or in other words a system of money and credit. This system also requires some form of 'mediation' to control flows between the primary and secondary circuits, which could fall under the role of the state or financial institutions. Finally, in Harvey's tertiary circuit of capital, investment takes place into sciences, technology and innovation, and in other social

expenditures that facilitate the reproduction of labour and the continued accumulation of capital.

The flows of capital through these three circuits is described as rhythmic rather than constant because of "the rhythms of capital accumulation and the physical and economic lifetime of the elements within the built environment" which means change is slow to take place (ibid., p77). The nature of the process is therefore cyclical, lying somewhere between short-term business cycles and very long-term investment cycles. Various investigations point to 'long-wave' investment cycles in the built environment. For example, in a study of building cycles in eight countries Gottlieb (1976) found cyclical investment patterns between 15 and 25 years.

Problems in this cycle were identified by Marx as a central contradiction to capitalist investment in the built environment. The contradiction lies in the nature of the physical assets. As the assets have a long-lasting use value, investment in new assets is either restricted or leads to a devaluation of existing investments. Harvey states that the "temporal flow of investment in the built environment can only be understood through this process", (op cit., p83).

However, this 'logic of capital' theory does not appear to fully explain events that occur in practice. The key element in this theory, particularly in respect to housing investment, is the process by which surplus capital and labour from the primary circuit flow into the secondary circuit, and hence into investment in dwellings. The theory of capital flows relies on effective 'mediation' to produce assets as required. Harvey acknowledges that there is a tendency to under-invest in the secondary circuit, and it is therefore vital that the institutions involved act responsibly to meet the needs of consumers. What Harvey does not appear to acknowledge is the importance of these controlling institutions and how they operate. In the realm of housing investment this role is performed by the state through public housing expenditures, by mortgage and credit institutions, by other housing bodies and to some extent by individual consumers. Housing is a more complex 'commodity' because it performs a greater function than just an investment asset, it also provides shelter and safety and satisfies a wide range of consumption demands. Mediating institutions can therefore have dramatic effects on individuals' lives in the redistribution of capital flows, that can result in phenomena such as homelessness, bad housing conditions and so on. Because of the nature of the housing element in fixed capital formation, its consumers clearly have a special interest in its provision and play an active role in attempting to influence the policies and controls imposed by the 'mediators' discussed above.

Ball (1986) has criticised Harvey on this point, claiming that he concentrates his argument of investment in the built environment on no more than "a struggle between capital and labour". He argues that Harvey's work emphasises the logic of capital in his theory, but fails to acknowledge the important role that "the 'mediations' and complications of the social relations of the built environment generate in capitalist society" (ibid. p452). Ball argues then that the social agents and institutions that control the switching of investment between circuits of capital are ignored; "once again, therefore, the social relations of building provision in Harvey's work are relegated to an unjustified obscurity" (ibid., p452). The role of policy and what Ball terms the 'structures of building provision' on housing investment will be examined in more detail later in the chapter.

It will now be useful to take forward one element of Harvey's theory relating to building cycles. He states that differences in investment (and therefore housing investment) occur because of cyclical fluctuations. The effects of long-term building cycles on construction investment has been well documented (see in particular Parry Lewis, 1965). Work has been done to test long-term fluctuations in investment and building cycles in the built environment (Gottlieb, 1976; Harvey, 1978; Butlin, 1964; Kuznets, 1973; and more recently Ball and Wood, 1994). Badcock (1984) argues that these cycles are not due just to a spillage of surplus capital within circuits of capital, as Harvey suggests, but more importantly through immigration and the rate of household formation. Parry Lewis (1965) also finds that the key to long-term fluctuations in construction activity is in 'population, credit and shocks' - where shocks include external factors such as wars, natural disasters etc. As such it is impossible to accurately forecast investment because of the effects of random events.

However, more generally the economy and rates and cycles of economic growth have also been argued to have a significant effect on investment fluctuations. In simple theoretical terms "a record of rapid growth tends to promote high investment, and a low growth record or falls in output promote cuts in investment" (Black, 1982, p74). In practice, however, these cycles are more complicated. In an examination of ten countries by Kuznets (1973) increases were found in proportions of capital formations in times of modern economic growth. He explains that this trend is not that surprising because, "economic growth meant large increases in per capita product, and one would expect that the national savings rate rose; and, with a greater supply of capital funds, one would expect that the domestic capital formation proportions also rose" (ibid., p128). However, in more detailed analysis several exceptions to this general statement were discovered and led Kuznets to conclude that, "the combination of the broad association between economic growth and the rise in capital formation proportions", occurs only, "with significant disparities in timing of the two variables" (ibid., p129).

Much conflicting evidence exists in relation to investment and growth rates. Indeed, the introduction to a study on building investment and economic growth by Ball and Wood (1994, p1) cites studies, (Aschauer 1989, De Long and Summers 1991), which respectively argue that there is a highly positive, and negative relationship between the two factors. To facilitate an independent analysis of housing investment for this study, economic growth will be included in the econometric testing to be carried out in later chapters.

In relation to building cycles it will also be useful to consider the effects of population and household formation, introduced above. Demographics and in particular population growth is argued to be a specific determinant of increases in investment (Kuznets, 1973; Black, 1982; Hillebrandt, 1974; Griffiths and Wall, 1993). Relating to investment this is because, "the higher the rate of increase in population and labour force, the greater requirement for material capital to equip additional workers" (Kuznets 1973, p10). More specifically investment in housing will be influenced by demographic changes due to changes in the birth rate, the death rate or rate of household formation. An increase in the rate of household formation requires an increase in housing investment if 'housing need' is to be met. One study by Holmans assessed future levels of need and demand (and therefore likely levels of future housing investment) using demographic analysis. Future levels of new dwellings needed were estimated using a 'modified net stock' method. This method takes into account effective demand for houses for private owners and needs for social housing; the latter is based on both existing unmet needs and newly arising need (largely a function of increases in the number of households and changes in the types of households). This methodology assumes, significantly, that the number and composition of households in a country is a major variable in determining future need and therefore future housing investment. While this study is not concerned with forecasting, Holmans' methods exemplify the important link between household growth, need and housing investment.

Other studies have, however, attributed less importance to the effects of population change on housing investment. Ball and Wood's study stated that trends in housing investment weighted by population did "not seem to be greatly affected...suggesting that national level population changes are not the prime cause of variations in housing investment" (op cit., p6). They do not dismiss the relevance of population effects on housing investment but claim that its' effect, "is transmitted through several inter-linked processes which weaken the direct relationship" (op cit. p6). In practice the rate of household formation is much more likely to have a positive effect on housing investment, as illustrated in Holmans' methodology, than is population growth. To clarify the effects of household and population growth in this study, demographic factors will also be included in the later statistical analysis.

There are a number of other basic economic principles that are often used to explain trends in investment. Many of these are, as indicated earlier, more frequently used to explain investment in plant and machinery, and the manufacturing sector generally, rather than housing investment. Much of the existing empirical work therefore reflects this bias. The relatively few works that have theorised the economics of housing investment are clearly limiting for a study such as this. While the economic theories discussed below are more frequently related to manufacturing investments, it will be useful to briefly examine their principles to determine possible relationships with housing investment.

The accelerator theory is a commonly used principle in economics to explain changes in investment. The theory states that investment will be related to the rate of change of output. If the demand for any consumption good increases, then the demand for investment goods used in its production will increase at a greater rate. Therefore, future investment is calculated by multiplying the increase in output, over a fixed time, by a fixed capital/output ratio. A number of criticisms have been levelled at this theory. Many of the assumptions of the theory are unlikely to hold in practice, for example, that no excess capacity exists, that the capital/output ratio is constant and that future expectations of industry do not play a greater role. Therefore, even in relation to non-housing investment the accelerator theory has limitations.

The theory has been largely rejected with respect to housing investment; Black (1982) describes the theory as a 'quite useless' explanation of investment as a whole and though it has some use in application to stocks and work in progress he states it cannot be applied to investment in dwellings which, "'has a cycle of its own", (ibid., p77). Hillebrandt (1974) used the accelerator principle to explain investment in industrial and commercial building, illustrating it to be a useful application provided increases in demand were anticipated (ibid., p63). In her study she goes on to state that the accelerator principle is less useful when applied to housing investment because changes in demand for housing are less obvious, and that housing demand is very dependent on other factors such as government social policy which could conceal the effects of the accelerator.

Partly to overcome the problems with the assumptions of the accelerator described above, the capital stock adjustment model was developed to explain investment more accurately. This model states that investment is related positively to changes in levels of output and negatively to the existing capital stock. Therefore, investment for the next period will increase in relation to the level of past output, but will be reduced proportionally by the volume of capital stock already existing. This model has proven to be considerably more useful in application to manufacturing fixed investment, and in particular when capacity utilisation variables were introduced (see Panic and Vernon, 1975; Kennedy, 1986; Catinat, 1987; Ford and Poret,

1990). Studies do not appear to have been executed specifically on housing investment. However, the adjustments to the accelerator principle make this model much more relevant to housing. Although problems of predicting changes in the demand (or need) for housing remain, indicators of previous construction and existing size of dwelling stocks could provide a clearer analysis. Further analysis of the effects of the size of existing stocks on investment in housing will therefore be included in the later statistical testing.

A further economic factor that may affect investment is the rate of interest. According to the marginal efficiency of capital theory, an investment decision is based on whether the rate of interest on borrowing for investment will be more than covered by the annual return on the initial capital outlay. If the interest rate is lower than the return on capital (or 'marginal efficiency of investment') the investment is profitable and therefore worthwhile. A large amount of emphasis in this theory is placed on expectations. As expectations are volatile, at any level of interest rates there will be changing expectations of future returns. Griffiths and Wall (1993) note that consequently "it may be via expectations that interest rates exert their major influence on investment", but that this possibility reduces the "closeness of any statistical fit between the interest rate and investment" (ibid. p296).

Studies examining this relationship have initial difficulties selecting an appropriate interest rate. Many UK studies undertaken have not been able to illustrate a close relationship, indicating that investment is actually, "interest-inelastic" (ibid. p296). Griffiths and Wall note that from a number of studies of fixed investment (and particularly manufacturing investment) those introducing lag structures were the most effective. Other studies also only reported a weak negative relationship (e.g. Turner, 1989).

Bank of England evidence (Easton, 1990) claims to show, however, that interest rates have had some considerable effect on investment, particularly in housing. It reports that the restructuring of the housing market due to deregulation in the mortgage market means that housing takes up a much greater role in the personal sector balance sheet, resulting in a greater interest rate effect on investment. A Bank of England simulation model of the UK economy illustrates the impact of an increase in interest rates on investment and residential investment. Their model suggests that after a 1 per cent point increase in all interest rates, investment would fall by 2.2 per cent over two years and by 2.8 per cent over three years. In addition private residential investment would fall more substantially over the periods, by 3.1 and 4.1 per cent respectively. The author notes, however, that all interactions are subject to uncertainty due to the effects of expectations, but results can provide some qualification of the interest rate effects on investment (ibid. p203).

Other economic factors that will affect gross investment and housing investment include profitability, the degree of uncertainty in the sector and in the economy as a whole. Finally, the management of the economy through public policy has been shown to have an effect on investment. The stop-go nature of public policies causes uncertainty in the economy which has a negative impact on confidence and can discourage investment. There is also evidence to show that in the past government investment in housing has been undertaken to counter balance construction in the private sector (Badcock, 1984, p139; Hillebrandt, 1974, pp19-20). In addition there are arguments that relate changes in investment and housing policy to external factors - or 'shocks' as was described in earlier analysis (this is discussed in more detail below).

Many of the theories discussed relate to total investment. It might be expected that housing investment can simply be investigated as a component of overall investment. Thus, the theories discussed which explain overall investment might, ipso facto, explain housing investment. This research does not investigate these general theories of investment. Rather, it investigates the degree of association between total investment (GFCF) and housing investment. To examine the extent of influence of total investment on housing investment, this factor will be included in the statistical analysis. The hypothesis that housing investment is significantly related to total investment in an economy will be investigated.

Some economic theory will be examined using statistical testing. There are not well developed economic theories of housing investment. However, there are theories which suggest that GDP per head and demographic factors may be important determinants. One of the most extensive attempts to test certain economic theories of housing investment on an international comparative basis was undertaken by Burns and Grebler (1977). Using cross-section data for 1963 to 1970 for thirty nine countries they used multiple regression analysis to find an explanation for average housing investment as a proportion of average annual gross domestic product. The key explanatory variables used were GDP per head, population growth and the level of urbanisation. In explaining the share of housing in total output Burns and Grebler found that the economic variable (GDP per head) was more useful than were the level of urbanisation and population growth (although urbanisation was a more significant determinant of housing investment than population growth). Despite these significant results they acknowledge that several potentially important variables were excluded from their analysis including the magnitude of government assistance to housing and the size and age (or condition) of the housing stock.

This study has clear links to the work of Burns and Grebler in that it will examine statistically the roles of demographics and economic growth in influencing housing investment. However,

it goes further than this earlier work by also considering total investment, the size of the housing stock and the effects of governments, policy decisions, and structures of housing provision. Changes in economic growth and the number of households may influence both the need and the demand for housing and thus, via the housing system in a given country, influence investment. The capacity of the stock to absorb the extra demand may limit the strength of any positive investment effect coming from growth and demographics. This research develops a 'need hypothesis' of housing investment which links demographic change and the size of the stocks as explanatory variables and it develops a 'need and growth' hypothesis which adds growth of GDP to the explanation.

The overall level of investment (total GFCF), demographic factors, the size of the housing stock, and economic growth are termed in this work 'broad national aggregates' which may help to explain housing investment. These are all quantifiable factors. The analysis of hypotheses linked to these 'broad national aggregates' lends itself to statistical investigation. This investigation is reported in chapter four. The place of public policy and the role of government in influencing investment will now be examined in more detail.

2.3 Government intervention, policy and housing investment

The state and government must be considered to be fundamental or a prerequisite to examining housing policy and housing investment outcomes. However, there are differing views concerning the extent of emphasis that should be given to the state and policy in housing research. Some critics have argued that state institutions "in themselves are empty and without power" (Dickens et al, 1985, p234), and others that the role of the state is over-emphasised in housing provision (Ball et al, 1988). These and other studies which play down the role and effect of the state and policy determinants in housing markets, have been (broadly) termed by Kemeny as "non-statist" (Kemeny, 1992, p45). These will be examined in the final section of this chapter. However, contrary to the 'non-statist' approach to housing, there exists considerable evidence to illustrate the influence of state intervention in the provision of housing. Consequently, an examination of the state's role and the form of welfare provision that exists for housing is clearly vital if conclusions regarding the determinants of housing investment are to be made.

Factors that influence state intervention must be investigated to achieve an understanding of housing investment. As a framework for this analysis it will be useful to detail, briefly, the theory surrounding the growth and expansion of welfare states, and then in turn to study approaches to conceptualising comparisons between welfare states in different countries.

2.3.1 The growth and expansion of the welfare state

From the existing literature a number of broad groups of welfare state development can be identified. These have been termed variously as the functionalist versus the action theories (Gough, 1979, p8) or the systems/structuralist approach versus the institutional/democracy theses (Esping-Anderson, 1990, p13). Many existing theories on the growth of the welfare state encapsulate aspects of these groups.

Examining these in turn, the 'functionalist' or 'systems/structuralist' approach has at its heart the idea of the "logic of industrialism" (ibid. p13), which focuses the development of social policy and the welfare state on industrialisation. Logically as capitalism emerges, traditional social institutions such as the family, church, guild solidarity and so on are destroyed and cannot be substituted by the market. Therefore the state assumes a welfare role. Theories that fit into this logic of industrialism perspective include Wilensky's 'pluralist industrial society' (Wilensky, 1975) which states that welfare state growth is a secular and universal evolutionary process, intimately linked to economic growth, industrialisation and urbanisation, but not to politics (quoted in Lundqvist, 1992, p1). In this sense it is the system itself that determines the structure of development or the continuance of society and economy.

In contrast action theories or institutional/democracy theses have their power base in individuals in society. They emphasise the human role in interpreting and reacting to their situations. From this 'power resources' approach two main explanations have been put forward. Firstly, the 'labour movement' thesis which emphasises a rising source of power from left wing and working class organisations, becoming in time more powerful than groups representing capital (Korpi, 1978, Esping-Anderson, 1985). Secondly, the 'game theoretical' thesis put forward by Korpi (1987), which states that programmes of public welfare stem from "decisions of interdependent actors seeking power positions to enhance longer-term policy objectives" (Lundqvist, 1992, p1). In addition to these is the 'state autonomy' theory which argues that growth in public provision is initiated by public officials to enhance their self-interest and increase the size of the public sector (Skocpol, 1985).

Welfare state theory developed by Esping-Anderson (1990), has particular relevance to the comparative analysis being undertaken in this study because of the way in which a comparison between the housing situations of different countries has been conceptualised. Some further explanation will therefore be useful.

In his work Esping-Anderson (ibid. pp19-33) emphasises that the development and creation of welfare states must be examined to understand their nature. He criticises 'early comparative studies' which often focused on just one particular factor to determine the extent of the whole welfare state. These looked at, for example, levels of expenditure in the welfare state, *or* levels of urbanisation, economic growth and number of elderly persons in the demographic structure, *or* the degree of leftist party strength and working class power mobilisation, and used these as a measure of a country's commitment to the welfare state. Esping-Anderson claims these 'first generation' studies fail to take in the whole picture. Uni-causal studies cannot reveal an understanding of the welfare state because they do not examine the ideals and aims of development.

Esping-Anderson stresses the need to start with an examination of the conception of state structure (in accordance with Therborn, 1983), which can be approached in a number of ways: by examining the historical transformations of states' activities (ibid.); by determining whether a welfare state is residual (i.e. it assumes responsibility for welfare provision only when the market fails), or universalistic (i.e. embodying an institutional commitment to welfare provision for all), (Titmuss, 1958); or, by selecting criteria to judge the type and extent of welfare states (Day 1978; Myles, 1984).

Esping-Anderson uses factors from these approaches to re-specify the welfare state. He identifies three different 'welfare regime types' based on how countries have achieved and established (historically), de-commodification rights and social stratification, and examines the relationship between the state, the market and family, and the degree to which these criteria define different welfare states.

In a comparative study of a number of countries, he identifies firstly the 'liberal welfare state regime type'. Within this regime, means tested assistance is identified, and modest universal transfers or social insurance plans are dominant. Progress in social reform is associated with liberal work ethic norms, and the state encourages the market. In this regime type he includes countries such as the US, Canada and Australia.

The second regime type is the conservative or strongly corporatist welfare state. Under this regime the preservation of 'status differentials' predominate, rights are attached to class and status, and under certain conditions the state is prepared to displace the market as a welfare provider. Examples of this welfare state type are Austria, Germany, Italy and France.

Finally, the social democratic regime type is distinguished by universalism, decommodification of social rights to the 'new middle-class' and high standards of equality between the middle-

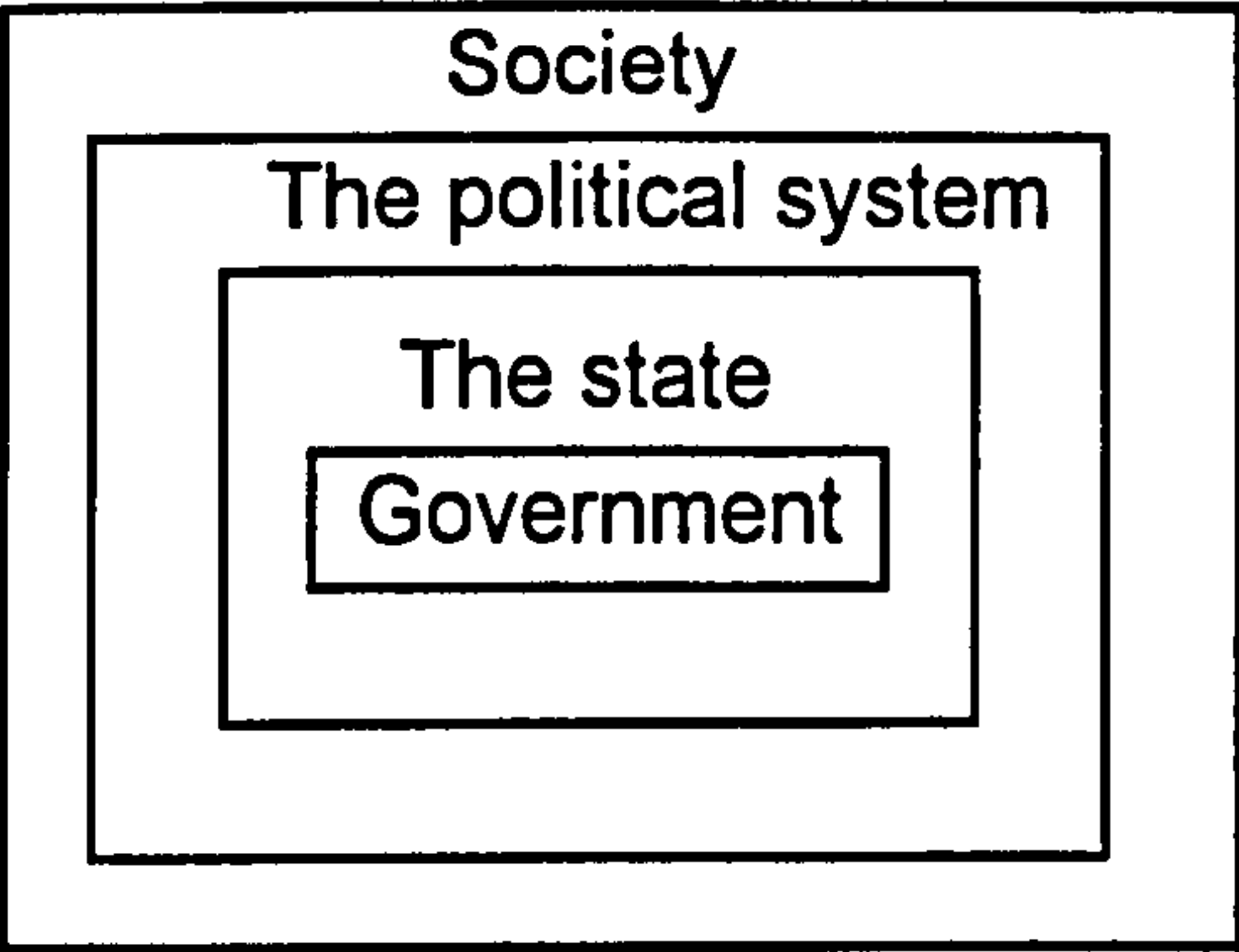
and working classes. This regime type 'crowds out' the market creating universal solidarity in favour of the welfare state. Countries identified include Belgium, the Netherlands and the Scandinavian countries.

Esping-Anderson does not specifically include housing as a criterion for identifying the welfare regime types, and the welfare provision of housing does not feature in his comparative calculations (ibid., pp70-78). However, this framework could provide a very useful tool for the conceptualisation of differences in housing between countries. By classifying the housing systems that will be studied here with reference to Esping-Anderson's welfare regime types, it might be possible to investigate how far differences in housing systems and ultimately housing investment could be explained by a country's welfare regime type. Examination of housing through this historical theoretical approach, could then, provide a further possible explanatory framework for housing investment differences.

2.3.2 'State intervention': a note on defining terms

Before examining in more detail forms of government intervention in housing, it will be useful to provide a brief examination of the terms 'state' and 'government' and ways of characterising government/state interventions through housing policy. The 'state' and 'government' can be identified as two separate entities, both of which go towards making up the political system in a society. Government is one part of the state. Hague et al (1987) note that, "The government is the core of the state but the two terms have distinct meanings" (ibid. p5). They have expressed this diagrammatically with reference also to 'society' and 'the political system', see Figure 2.1

Figure 2.1: Government, state political system and society



Source: Hague et al (1987, p5)

Within society we are introduced first to the political system which Hague et al, define as, "all those forces which impinge upon the state. Parties, voters and interest groups are not formally part of the state but they are part of the political system". They describe its role as one of affecting, and being influenced by, those who govern. On the next level the state "covers the whole range of offices that make and enforce collective decisions for society". This includes ministers, judges, legislators etc. At the national level government is concerned more with political direction and refers "to the ministers in charge of major departments" (ibid., pp5-6).

Although definite distinctions can be made between state and government, Miliband (1969) makes the point that, "It is not very surprising that government and state should often appear as synonymous", and this is because, "it is the government which speaks on the state's behalf" (ibid. p46). Miliband goes on to give more detailed definitions, where: the state "..stands for..a number of particular institutions which, together, constitute its reality, and which interact as parts of what might be called the state system", and the government "..speaks in the name of the state and is formally invested with state power," and "it must assume ultimate responsibility for the state" (ibid. p47).

He also gives examples of other elements that together with government, make up the state system: "These are the institutions - the government, the administration, the military and the police, the judicial branch, sub-central government and parliamentary assemblies - which make up 'the state', and whose interrelationship shapes the form of the state system." (ibid. p50).

It is from these initial definitions that we can start to explain how the state and government structures operate within housing. From these definitions it can be argued that 'the state and housing' has a very different meaning to 'the government and housing'.

State structures and institutions can be described as constituting the state system, while the government (and its policy) represents those state institutions and makes alternative choices within the system. This could also involve altering, or at least having the power to alter, those same systems and structures. A difference can therefore be established between putting a system in place (for example, establishing housing as part of the welfare state) and controlling that system as a government. State 'intervention' is therefore ambiguous and could be referring either to the organisation of state structures or the nature of policy and governmental decisions.

This distinction can be applied to housing in terms of 'major' and 'minor' government policy changes to the institutional arrangements that make up the 'apparatus of the state'. In the UK for example, the apparatus of the state in housing would include relatively permanent

institutions such as ministries and departments and other public bodies such as the Housing Corporation. Within the housing system the state apparatus works alongside other institutions including housing associations, building societies and so on.

Within this institutional framework governments have the power to instigate 'major' and 'minor' housing policy changes.

Major policy changes may include:

- changes to the apparatus of the state housing institutions to,
 - create or abolish institutions of the state
 - change substantially the powers of institutions of the state
- changes to non-state housing institutional arrangements to,
 - encourage the establishment/abolition of institutions
 - modify the powers of institutions

Minor policy changes may include:

- changing regulations related to housing concerning distribution, standards or controls
- changing the value of state payments/taxation as it relates to housing, through systems of housing benefit, income tax, mortgage interest tax relief etc.

In addition the government may implement other policies especially those related to running the economy, which could affect housing.

In establishing forms of 'state intervention' in housing it might be useful to refer back to these levels of policy options as a method of characterising differences. The number of different choices that government can make in influencing the housing market and housing provision illustrates the importance of its potential effects. The different paths that different governments choose to take are significant in respect to housing investment. Part of the later analysis will examine the effect of policy decisions on housing investment outcomes.

2.3.3 Government intervention in housing

The ways in which the government intervenes in the housing market, in particular the instruments of government policy and the 'role of the state', will now be examined. There are extensive theories on the rise (and fall) of housing in the welfare state (Kemeny, 1992; Lundqvist, 1992). There is also a substantial (mainly economic) literature on the reasons for state intervention in the housing field (e.g. MacLennan, 1982; Stafford, 1978; Hillebrandt, 1974). While there is not the space to examine all of these works here, it will be useful to make some comments regarding particular studies, in relation to housing investment.

Aspects of economic theory provide a variety of reasons for government intervention in housing provision. These include:

- to compensate for market failures (such as externalities)
- to ensure equity in distribution and quality
- to ensure housing needs are met
- to maintain, when necessary, an equilibrium between supply and demand
- to support general macro-economic policy
- to promote the belief that housing is a merit good.

There are, however, many other often conflicting views on reasons for policy decisions. Some of these may provide some explanation of housing investment determinants. Harloe (1980), has put forward five such motives for state intervention:

1) The attitudes of certain social groups who would be affected by policy outcomes (such as industry, builders and landowners, finance capital and consumers) may be taken into account by politicians prior to policy changes.

2) Self-interest and conflicts within the state apparatus between departments and with (in the UK) the Treasury, for example.

3) State policies are likely to reflect conflicts between 'opposing economic and political interests' by making necessary compromises. However, Harloe notes two problems that arise as a consequence of using ideology to 'rationalise' policy proposals. Firstly that state intervention can result in solving one problem but creating another, and, secondly, and related to the first, that policy decisions are often short term solutions to immediate problems and not considered plans.

4) The state may have the objective of ensuring effective control over policy implementation and expenditure at the local level. Reducing local autonomy and increasing central control gives governments greater opportunity to eradicate possible instabilities.

5) Finally, Harloe outlines a discussion put forward by Hirsch (1976), in which state policies emerge 'as a process of structural selectivity'. Under this process the state would be more likely to 'support productive activity' rather than carry it out directly, which limits its ability to appropriate 'private production'. As a result the state also has limited resources available to it (op cit. pp25-26).

These considerations give more emphasis to political realities and ideology, as well as political expediencies, and could prove to be more significant than some of the economic theses. For example, in relation to the second consideration, above, Forrest and Murie (1986) note that "the shape of British housing policy is now clearly being dictated by the Treasury...economic concerns have always dominated housing policy but its disguise as some form of social policy has worn thinner than ever" (ibid. p46). Support is also given to the influence of ideology.. "political ideology is an important element in determining the nature and scope of state intervention in housing" (Back and Hamnett, 1985, p408). Political influences on housing investment outcomes will be examined in the different countries in later chapters.

In addition to these ideas, it is clear that 'external factors' play a role in determining housing outcomes and housing investment levels. A further reason for state intervention is as a response to a particular event or crisis beyond state control (seen particularly in the effects on housing of the world economic crisis during the mid- to late 1970s). In his paper on the 'Changing role of government' Priemus (1990a), characterises the housing process as 'symptom orientated'. This, he explains, is because housing market problems are not the result of 'incorrect' housing policies, but 'external factors' which might range from wars and political crises to other economic and demographic factors. He details major external shocks that have historically led to state intervention and housing investment. For example, he notes that "industrialisation is at the root of the central government's involvement in housing", with both the first and second world wars having major effects. He goes so far as to say, "it was always the external, destabilising shocks that made it necessary to follow a central housing policy", although it is acknowledged that political rhetoric also contributed to "the varying content of national housing policy" (ibid. pp3-4). As the political priority of housing continues to fall in the 1990s, Priemus writes that, "we need new disasters to revitalise central housing policy". The influence of external shocks on housing investment outcomes will be examined more closely later.

The actual policy instruments that a government can utilise in housing are now discussed. Government intervention through housing policy can influence either the production or consumption of housing. It can do this through specific policy instruments (detailed below) or through its regulatory powers of control of the housing system. As discussed above the government may make 'major' or 'minor' policy decisions. These can either be effected to make changes to the structures of the system or to make changes to the instruments within the system.

Housing policy instruments can be broadly divided between those directly affecting the consumption and those directly affecting the production of housing. Lundqvist (1992) details

the possible state interventions in the housing sector. These, he divides into two distinguishable factors: household purchasing power (consumption) and dwelling price (production). On the consumption side a government can intervene to influence the allocation and distribution of dwellings. It can do this by influencing household incomes (through income transfers or housing allowances) or by regulating access and possession rights of housing (with rent regulations, sales regulations, etc.). On the production side a government may intervene to regulate the costs of factors of production and the quantity and quality of new construction and the existing dwelling stock. In addition financial measures can be used as housing policy instruments. These might include capital cost financing, finance for management, maintenance and repair, as well as through taxation (on for example, income, property and sales).

This outlines the main policy instruments open to a government. Lundqvist uses this as a basis for comparative analysis to investigate "what governments do and do not do", noting that, "such content comparison will reveal particular patterns of public intervention for each nation" (ibid. p4).

Within this framework Lundqvist emphasises the importance of the determinants of housing policy decisions. The influence, for example, of the institutional structures and pressures from their interest groups as well as political power and decisions taken by politicians are considered. He maintains that policy is 'the central element in his analysis' but, importantly, acknowledges the influence of market developments, changes in the supply of housing and changes in the socio-economic status of households. Lundqvist has, therefore, gone some way to answering some critics of the policy-based approach (see above), by broadening his study to include the provision of housing and some discussion of institutional structures, together with policy changes and consumption patterns. He also introduces an analysis of the role of the welfare state into this framework. This is of considerable value to the formulation of a framework for comparative housing research. The literature clearly reveals a wide range of government objectives in relation to housing and many alternative and often competing rationales for government activity. The range of policy instruments available in principle, and in use in practice, is also wide. Governments do sometimes seek to directly influence housing investment. Often, however, this is not part of their agenda. Thus, many actions of the government may have both intended and unintended effects on housing investment.

It might also be argued that the types and forms of housing policies that are implemented or utilised can have an effect on housing outcomes, including housing investment. This relates in part to the earlier discussion on welfare state types. It was shown that a welfare state might be classified as, for example, residual or universalistic (Titmuss, 1958), or liberal, corporatist or

social-democratic (Esping-Anderson, 1990). Different welfare state types may be associated with different types and forms of housing policies. Donnison and Ungerson (1982), for example, classified housing policies as being residual (supplementary) or comprehensive in their scope and nature. Differences between countries in the types and forms of housing policies will be examined in chapter five. More detailed analysis of housing policy types will investigate whether different forms of housing policy in different countries might provide some explanation for different levels of housing investment. The institutional or 'structures of provision' approach to comparative housing analysis will now be examined.

2.4 Structures of provision in housing analysis

The theories and methodologies examined thus far in this chapter have focused on economic and policy based approaches. Discussion has shown that there is a potential value in applying these approaches to comparative housing research, and to comparisons of housing investment. A further body of literature (introduced earlier as 'non-statist' studies) might also make some contribution in this analysis. These studies explore institutional and structural processes in housing provision, and examine their influences. They include work by Ball (1981, 1982), Harloe and Martens (1984), Dickens et al (1985), Barlow and Duncan (1994).

In an article outlining the concept of 'structures of provision' Ball (1986) criticises some economic and policy based approaches (such as work by Harvey, 1976; Castells, 1977; Lojkine, 1976). His main argument is not with the general theoretical approach, but that many of these approaches ignore or neglect the role of 'the social relations of building provision' in their analysis. Ball argues that this aspect of urban theory is crucial to understanding the "social creation of the built environment" (op cit., p447). This work was continued particularly in Harloe and Martens (1984, 1985) and in Ball, Harloe and Martens (1988).

Ball (1981, 1982) defines the structures of housing provision to be the forms, agents and institutions involved in housing provision and the social relations that exist between them. He states that social relations define the "structural location of any social agent" (Ball, 1982, p76). In terms of different types of housing provision, the social relations can be categorised by specifying the various functions that exist in providing housing. Each tenure type having a different 'structure of provision'. For example, social relations involved in providing owner occupation in Britain include, "landowners, speculative house builders, building workers, surveyors, estate agents, ...mortgage financiers, and the state as a land-use planner, infrastructure provider and legislator, and owner-occupiers" (ibid., p76). He argues that in

housing analysis, and in particular comparative housing research, this analytical framework specifying the structures of provision, should be central.

By 'provision' Ball is not restricting analysis to just production, but defines it in terms of "the production, exchange, distribution and use of a built structure" (Ball, 1986, p455). As such there will also be a significant interaction between structures of provision and the whole social environment. While these 'linkages' could be manifold, Ball specifies three in particular.

Firstly, functional linkages which, for example, might include taking into account the use and value of entering into the production of housing for the investor and secondly, historical linkages. The physical nature of housing dictates its long life-span and the subsequent importance of the historical evolution of structures of provision in affecting this. Finally, linkages must be acknowledged with the role of state intervention. The state will clearly have major influences over patterns of provision in housing.

Ball argues that all types of building provision have connections with these wider social processes, and also that none can be completely understood in isolation from the other linkage elements. It is stressed that the structures of provision concept is not a theory or explanation of provision itself, but has a major purpose as a "means of ordering and evaluating particular sets of empirical material" (ibid., p457).

Other approaches to comparative housing research are criticised by promoters of the structures of provision thesis for "their over-emphasis on policy analysis...relative lack of attention to housing market processes and their inadequate theoretical foundations" (Harloe and Martens, 1984, p255). It is argued that too much attention is given to policy formulations and suggestions without putting these in the context of housing systems and processes. This is a valid point and has considerable significance for this work on housing investment. An integrated approach is clearly required for this research. The structures of provision thesis claims to provide this in examining, "the existence of different national ideologies, institutional arrangements and traditions of state intervention" (ibid., p260), which are more usually taken as 'given' in other studies.

While the 'structures of provision' thesis appears to offer a complete analytical framework for housing comparisons, a number of questions arise in its application. As noted above, Ball plays down the effect of policy developments and state intervention and may consequently be discounting factors that otherwise have considerable influence in provision outcomes. In addition some of the subsequent work carried out by Ball et al (1988) has been criticised for not actually following the principles of its own theory (see Oxley, 1989). Ball defends this

criticism stating that housing research can benefit from using a mix of theoretical tools, including the structures of housing provision approach (Ball and Harloe, 1991).

Lundqvist (1992) also notes that aspects of the structures of provision approach, while emphasising an historical perspective, are not linked to theories of welfare state development. Lundqvist himself does include this aspect in his analysis (see above). Harloe (1995) utilises a similar approach in his historical comparative study of the social rented housing sector. Harloe's principal objective is to "provide..a theory of the development of social rented housing in a selection of advanced capitalist countries" (ibid., p5). To enable this investigation Harloe uses the structures of provision approach as a conceptual framework. He describes the concept of structures of provision as meta-theoretic in nature, providing a means to achieving the above stated objective. However, in a similar way to Lundqvist (1992), Harloe stresses the importance of examining structures of provision together with the changing social, economic and political context to social housing development. Harloe's study, therefore, combines a 'structures of provision' approach with an historical examination of welfare state development and the changing role of the state in relation to social housing.

There can be considerable benefits to the results of an analysis in considering many possible contributory factors that might affect housing systems and housing provision, seen, for example, in the work of Lundqvist and Harloe described above. An emphasis on one particular factor over others could result in something less than the fullest possible explanation.

Aspects of the structures of provision approach can provide a very useful framework for comparisons of housing systems and their outcomes. In discussing the housing investment outcomes of different housing systems an examination of the affects of the 'forms, agents and institutions' and how they interact is particularly relevant. This type of analysis will be particularly useful in analysing the possible effects of social housing systems on housing investment outcomes. This is the substance of one of the hypotheses outlined in chapter one. By examining the structures of provision in social housing in the chosen countries the analytical framework could provide a valuable tool for explaining differences in outcomes and possible causes for those differences.

Further adaptations of the structures of provision and 'institutional' approach to comparative housing analysis have been utilised by, among others, Dickens et al (1985), Barlow et al (1988) and Barlow and Duncan (1994). In their work on the comparison of four European growth regions Dickens et al ask the question, "why do nation states, apparently with similar structural positions in international capitalism, end up with substantial variations in housing provision?" (op cit. p3). In particular they focus on 'local states' and localities in search of an

explanation for local differences in housing provision within nation states. In their analysis they emphasise the importance of both social structures and social practices in explaining and understanding housing provision changes, "differences...must reflect the interaction of structures with practices" (ibid. p3). In addition to focusing on both the nation state and local state, the work attempts to link empirical factors with a conceptualisation of the social relations in the chosen countries to provide a fuller research framework. This has clear connections to the structures of provision thesis put forward by Ball and others.

However, much of the work by Dickens, Duncan, Barlow etc., is focused on an analysis of the market/state mix, institutional arrangements and their affect on housing provision. As such it also draws on work on the 'housing provision chain' put forward by Ambrose and Barlow (1986). This 'chain' thesis presents an additional framework for making comparisons of different housing systems. The housing provision chain was formulated by examining the provision and use of a housing unit in a number of different countries, which can be broken down into five stages:

- 1: Promotion - the act of initiating the scheme
 - 2: Investment - the input of money to assemble factor inputs
 - 3: Construction - the actual production of the unit
 - 4: Allocation - the arrangements governing access to the housing
 - 5: Subsequent ownership/management - including responsibility for maintenance, conversion, re-allocation and eventual termination of use
- (Ambrose 1990, 1991).

It is stressed that the above five stages are the processes of provision and use, and that each stage may be carried out by either a variety of agencies throughout the process, or in some cases by one agency for all stages. The importance of discerning between 'public' and 'private' activities within the chain is also stressed and it is this element that is utilised particularly in the comparative research by Barlow and Duncan . Ambrose notes that the housing provision chain was formulated "to present a framework designed to help make meaningful comparison between different housing systems" (Ambrose, 1991, p92). The utilisation of this framework can therefore help to 'sharpen the analysis' particularly in terms of policy making and state intervention in housing systems.

Some of the concepts discussed here will also be of value in this work. It will be possible to combine elements of the structures of provision approach with some of the stages in the housing provision chain to provide a framework for examining social housing systems and housing investment levels in later chapters.

More recent work Barlow and Duncan (1994) has gone beyond examining housing provision through institutional arrangements and the production and consumption of housing by integrating, in addition, a discussion of Esping-Anderson's work on comparative welfare states (see section 2.3.1). This adds an important element in comparative housing research by linking a 'structures of provision' approach with a 'welfare state' analysis of housing systems. In discussing the foundations for making international comparisons Duncan and Barlow reject methodologies based on tenure distinctions, which are often used to illustrate differences in the welfare provision of housing (some further discussion of tenure distinctions will be made in chapter six). Instead they favour a framework for investigating market-state mixes based on the elements in Ambrose's housing provision chain, discussed above. Their study uses this framework to examine "Market-state mixes in promotion, land supply and production" (ibid., p35) in relation to the different welfare regime types of the countries being examined. They claim that countries representing different welfare regime types were chosen for their study to provide a better basis of comparison of welfare-state and market mixes. The incorporation of these different theoretical frameworks in the study by Barlow and Duncan represents itself a greater degree of integration than exists in other work examined here, acknowledging the influence of many factors on housing provision outcomes. Their theoretical approach can also provide a basis for investigating housing investment determinants in this work.

The structures of provision and institutional based approaches differ from the policy based approaches discussed earlier by acknowledging that the context within which housing market processes operate is continually changing, and it is these changes in the provision of housing and housing services that must be recognised to understand the system of housing. As such it is necessary to account for and describe the institutional arrangements to enable an understanding of housing market processes. This approach, which will be more closely defined at the beginning of chapter six, will be taken as a basis for chapters six and seven in an analysis of social housing systems and their effects on housing investment levels.

2.5 Conclusion and methodological approach

This chapter has provided a detailed discussion and review of theoretical approaches to comparative housing research. Dividing this discussion between economic-based, policy-based and institutional-based forms of analysis has revealed many different frameworks that could provide a theoretical basis for this research. However, in work which is examining determinants and explanations of housing investment levels in different countries, to choose any one framework might be inadvertently limiting results.

Throughout the chapter numerous factors have been identified as having theoretical, and possible practical, implications for housing investment. From economic theory these include: cycles of capital flows, economic and building cycles, economic growth, population change and household formation, changes in levels of past output and size of the existing stocks, and interest rates, as well as profitability, uncertainty and economic policies. In particular four broad national aggregates were outlined as theoretically having links to housing investment which could be tested statistically.

Many of the policy based and structures of provision theses provide different frameworks for comparisons, but at the same time indicate factors that could play a determining role in housing investment outcomes. For example, the growth and development of the welfare state may hold some explanations for different housing investment levels. Using Esping-Anderson's three welfare state regime types, it may be possible to determine whether one particular 'regime-type' has resulted in different levels of investment in housing.

It was also seen that routes of government intervention and policy decisions could affect investment. Later chapters will examine whether different policy choices, either through major changes affecting 'structures' or minor changes affecting 'regulation and control' within structures, lead to different investment outcomes. In addition the possible effects of different types and forms of housing policies on housing investment will be investigated. The effects of ideology and external shocks can also be considered in relation to housing investment.

Finally, within any housing system the institutional arrangements, and so-called 'structures of provision' might also account for differences in housing investment levels. Different systems of providing housing and their alternative institutional arrangements might result in different investment outcomes. This analysis will concentrate on the institutional arrangements in the social housing sector (see discussion in sections 1.3 and 1.4, chapter one).

Amongst all of these approaches it is possible to find some common elements. For example, many of the factors listed in the five stages of the housing provision chain, can also be found in descriptions of the agents of the 'structures of provision'. Many studies acknowledge (although to varying degrees) the importance of the role of the state and its policies. Economics can also be seen to play a substantial role. The studies do, however, vary in their emphasis and concentration on particular factors. This may be partly justified because of the particular issue being focused on, and the aims of the research. However, this review has also shown that there is the possibility that contradictory views can lead to different results in the consideration of similar issues.

This work is aiming to provide a wide ranging explanation of housing investment and its differences between countries. To facilitate this kind of study, a variety of existing theoretical frameworks will be utilised to account for many factors that might be expected to have an effect on this issue.

The methodology to be adopted will therefore include elements of the three broad types of analysis outlined in this chapter. This can be described as an integrated methodological approach to investigate housing investment. A simplified outline of this approach and its application to housing investment is represented in Figure 2.2. This figure illustrates the three main areas of focus within this integrated approach. Each of these will be examined to investigate their influence on housing investment:

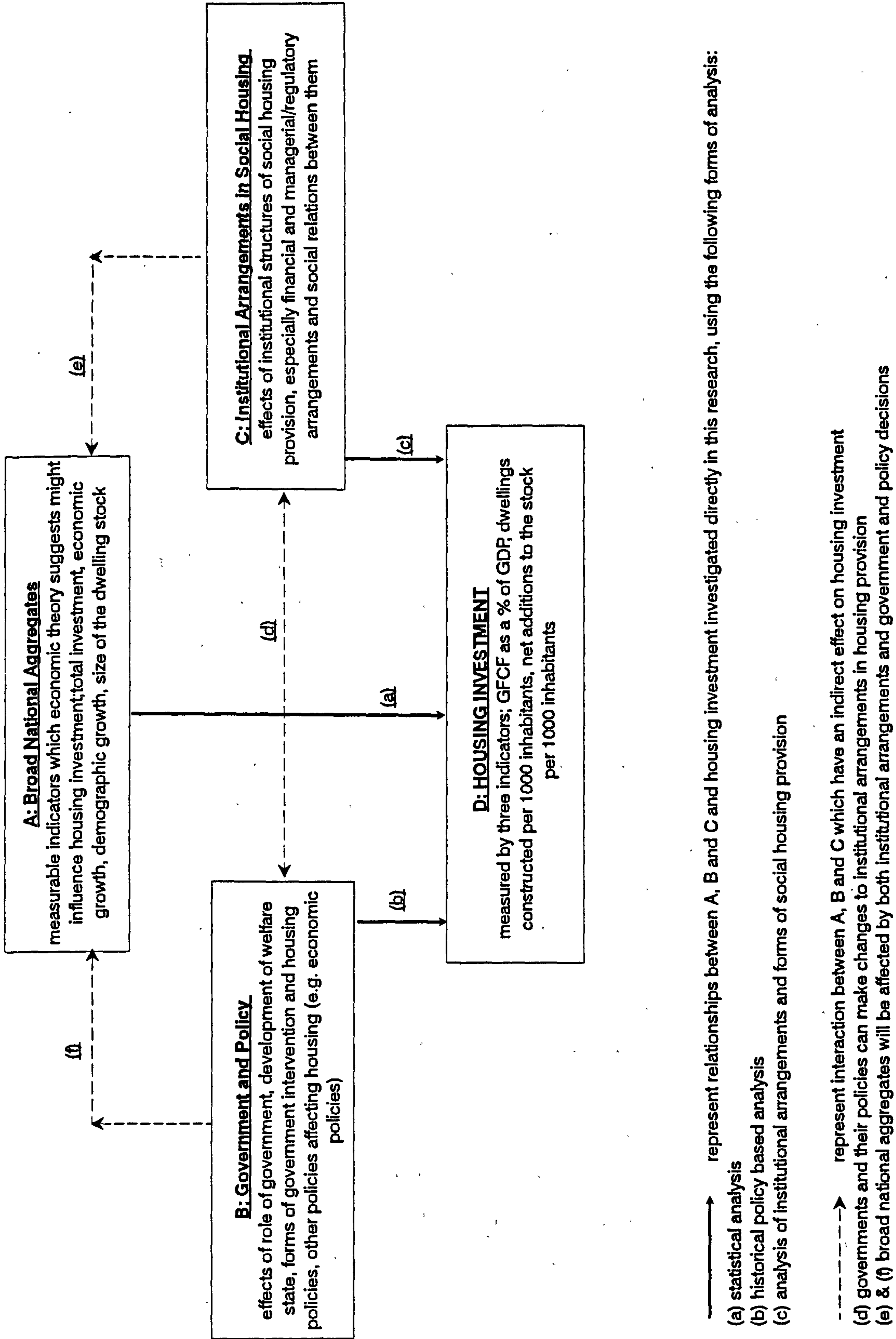
a) Statistical analysis will be used to examine economic theories that suggest that certain broad national aggregates affect housing investment. Four specific aggregates will be investigated: total investment in an economy, economic growth, demographic growth and the size of housing stocks.

b) An historical policy based analysis will examine the effects of government and policy decisions on housing investment. This analysis will examine both general and specific effects. In investigating the role of government generally it will include the potential effects of welfare state development, history, ideology, the political system, economic conditions and other 'external' factors. More specifically it will consider the effects of housing policy decisions on housing investment, and also the effects of other policy decisions, especially those relating to the economy, that might affect housing and housing investment.

c) An investigation of the institutional arrangements in systems of social housing provision will utilise structures of housing provision analysis. This will examine the forms, agents and institutions within social housing systems, and the social relations between them, to investigate possible effects on housing investment. The institutional arrangements to be examined focus particularly on financial and managerial arrangements and their respective social relations. It must be stressed that this research is not investigating whether institutional arrangements generally influence housing investment, but whether the specific institutional arrangements for social housing influence housing investment.

As Figure 2.2 clearly indicates there are significant links between the three areas of investigation. It is acknowledged that there will be a considerable amount of interaction and influence between areas A, B and C in the diagram. The processes by which the broad national aggregates influence housing investment will be influenced by both government and policy, and the structural forms of provision in any country. In addition the government will play some role in the control and regulation of institutional arrangements in social housing and also

Figure 2.2: An integrated methodology for investigating housing investment



has the power, through policy decisions, to make changes to the structural arrangements of social housing provision in a country. While each of the areas A, B and C are investigated separately, it is expected that they will have a complementary and integrated effect on housing investment.

Differences between countries in outcomes of housing investment will be investigated to examine the contribution to an explanation that can be made by differences in areas A, B and C in the diagram. It is important to note that it is not necessarily an aim of this research to explain why A, B and C are different, or take on different forms in different countries. There is, for example, much literature that theorises about policy origins and describes and analyses how and why policies are different (see for example, Somerville, 1994). It is clear that some understanding of differences in government and policy, and structures of provision is necessary in order to appreciate their effects on housing investment. There is, therefore, some discussion of the growth and development of the welfare state in the four countries being examined. However, the focus of this work is on policy outcomes and the consequences of different structures of provision for housing investment.

A major aim of this thesis is to find explanations for the measured outcomes of housing investment, represented in box D in Figure 2.2. Attempting to explain such measured outcomes using a number of alternative forms of analysis differentiates this research from much of the other comparative housing research discussed in this chapter. While work by Burns and Grebler (1977), also attempted to explain housing investment it has been shown that specific limitations exist in the scope of their research. More recent comparative housing analysis has tended to focus more on differences between countries in the development and organisation of housing systems or aspects thereof. For example, Emms (1990), Power (1993) and Harloe (1995) have all analysed, to different extents, the development and changing arrangements in the social housing sectors in a number of countries. Barlow and Duncan (1994) aimed to examine the 'efficiency' (or economic and social success) of housing systems in three countries. Boelhouwer and Heijden (1992) examined housing systems in a number of countries and highlighted differences and similarities in their development. Other research attempts to explain differences that are found between countries using a particular theoretical viewpoint. For example, Kemeny (1995) attempts to explain differences in European rental systems using the concept of 'processes of maturation' as a framework. There is, then, much research that has described and analysed aspects of housing which has attempted to explain differences that are found between countries using alternative analytical frameworks. Attempting to explain a measured outcome distinguishes this research from other work and takes forward and adds to the body of existing comparative housing research.

A further point to emphasise is that this work does not attempt to consider all possible approaches to comparative housing research. In the introduction to this chapter, it was noted that 'some examples' of theoretical approaches to comparative housing research would be examined. It is clearly not possible, and indeed not necessarily beneficial to the work, to attempt to review all aspects and approaches to comparative housing research. However, one additional and noteworthy focus of work, often referred to in international housing studies, is the convergence thesis. Studies that have examined differences and similarities in housing markets and housing systems often include in their analyses reference to the convergence-divergence issue (see for example, Schmidt, 1989; Boelhouwer and Heijden, 1992; Kemeny, 1992; Kleinman, 1992; Priemus et al, 1994). This is concerned with the extent to which housing policies and housing markets in industrial societies, and particularly in Europe, are converging or diverging over time. This analytical approach could provide a further potential framework for undertaking comparative housing research. While an awareness of this thesis and its potential value is acknowledged, it will nevertheless, not be specifically included in this study.

This work aims to focus not on any one specific theory, but, instead on a number of different forms of theoretical analysis. It is hoped that this methodology will provide a fuller picture of the determinants of investment, and explore the potential of using an integrated theoretical framework.

Chapter 3: Housing investment in Europe

3.1 Introduction

In chapter one the measure 'housing investment' was introduced and discussed. In particular the continuing importance and significance of housing investment to both maintain and replace a nation's dwelling stock was emphasised. Different levels of housing investment in different countries can be seen to be having a direct impact on a nation's housing conditions and its responsiveness to meeting both demand and need.

In this chapter the measurement of housing investment and the value of its comparison between countries will be examined more closely. A number of different indicators that can be used to represent housing investment in cross-national comparisons will be identified and defined. A detailed investigation of the data being used, its sources and differences between countries, must be undertaken so that any problems can be identified and taken into account. When an evaluation and discussion of the housing investment indicators and data has been executed, data representing three main indicators of housing investment will be presented and analysed. Data for France, Germany, the Netherlands and the UK will be given over the period 1970-1992. The main trends and differences will be identified.

This data will form the basis of the statistical testing to be carried out in chapter four, and will also be utilised, in part, for some of the later qualitative analysis.

3.2 Housing investment indicators

Housing investment can be quantified as the level of capital investment in new dwellings and in major renovation work. There are three main indicators that can be used here, and that are collected on an international basis to represent the level of housing investment in Europe:

- (i) Housing investment as a percentage of Gross Domestic Product
- (ii) Dwellings constructed per 1000 inhabitants
- (iii) Net additions to the stock per 1000 inhabitants.

All three indicators are taken from data collected by the United Nations and presented in its Annual Bulletin of Housing and Building Statistics (United Nations, 1993). Three indicators

are being used due to the difficulties associated with assuming that any one indicator will perfectly represent housing investment. Initially, definitions of the indicators will be examined.

(i) Housing investment as a percentage of GDP

The measure of housing investment used in this indicator is Gross Fixed Capital Formation (GFCF) in residential buildings as a percentage of Gross Domestic Product. The data source gives the definition for GFCF in residential buildings as follows:

"Value of work put in place on the construction of residential buildings, including major alterations in and additions to such buildings, but excluding the value of land before improvement. Expenditures in respect of the installation of new permanent fixtures are included" (United Nations, 1993, p156).

Examination of this indicator shows, as we shall see later, that the UK has had considerably lower investment rates in housing than is apparent in other European countries. Some questions were raised, following field visits to France and Germany, about the validity of the UN data. It was suggested that different items might be included in the GFCF figures in different countries, providing part of the explanation for an apparently low level in the UK. In particular it was suggested that differences in the inclusions of major repair and renovation work might provide a cause for differences between the UK and other European countries. An investigation was therefore undertaken into definitions of GFCF in the four main countries, on which the research focuses, France, Germany, The Netherlands and the UK, to establish which items are included.

When these definitions are examined within the national accounts of the respective countries, it does appear that the main items that make up the GFCF in residential buildings are broadly comparable. Differences do exist in the methods by which some of the items are calculated or collected. In particular methods of estimating the value of new construction investment varies, as do estimates of investments in major renovations. However, the main items included are generally the same.

All four countries make a calculation for investment in the construction of new dwellings, residential buildings and also in buildings purchased with the aim of transforming them into dwellings. All estimates of investment include both public and private investment. The estimates of investment in new dwellings are calculated excluding the land value of the 'plots' connected to those dwellings.

The second major item included is an estimate of expenditures on improvements and major renovations on existing dwellings. More specifically, this represents structural additions and enlargements and as such is investment in a dwelling that will increase its length of use or its value. It does not include more general maintenance expenditures.

Finally, all definitions examined noted that service costs and expenditure related to the production and purchase of the dwellings, such as architects, solicitors and surveyors fees, are not included in the GFCF in housing.

This evaluation reveals that the four countries being examined do all include the same major items in their statistics on GFCF in residential buildings. In particular there are no major omissions of items that might have been causing differences in the levels of GFCF in housing over this period. It can be concluded, then, that the UN data on Gross Fixed Capital Formation in residential buildings as a percentage of GDP is a valid indicator of levels of housing investment across Europe. GFCF in housing will be expressed as a percentage of GDP to take account of differences in the size of the different economies, making the data more amenable to comparisons.

It will be useful at this stage to explore, in slightly more detail the items included in the GFCF in housing data, in terms of the share of investment in new construction, versus that of major renovations. While data distinguishing between investment in new dwellings and investment in renovations is not available from main international sources, some approximations can be made from national sources, which produce some interesting results, see Table 3.1. It might be expected that investment in major repairs and renovations would have an increasing share of total GFCF in housing, as the emphasis in many countries switches from new build to maintaining the existing stock. Countries with higher rates of owner-occupation might also have greater investment in major repairs, as the incentives to carry out such work might hold higher value to homeowners. In addition, countries with older housing stocks, such as the UK, may also have higher levels of investment in repairs and renovations.

A brief examination of estimates of investment devoted to repairs and renovations in total housing investment, reflect some of these trends. The data in Table 3.1 illustrates that the percentage of repairs and renovations in total investment increased considerably in all countries between 1970 and 1992. The increase has clearly been significant in the UK rising from 32 per cent in 1971 to 67 per cent in 1992. There are also considerable differences between countries. The UK, for example, was investing, relatively, much more in repairs and renovations than the Netherlands in 1992. This data does tend to support the proposition that investment has shifted from new construction to major renovations as countries have shifted in

Table 3.1: Repairs and renovations as a % of total housing output/investment

Year	UK	Netherlands	France	Germany
1970	32*	8	20	26
1975	35	15	21	29
1980	51	20	28	32
1985	63	18	38	43
1990	67	20	38	48
1992	67	21	39	47

* 1971

Source: own calculations, from:

UK: DOE, Housing and Construction Statistics, 1982, 1993.

(Value of construction output in housing, divided between new housing and repair and maintenance work)

Netherlands: Netherlands Ministry of Housing and Physical Planning, 1994

(Total funds invested in new construction and major renovations)

France: National Accounts, INSEE, various years.

(Gross Fixed Capital Formation in housing, divided between new housing and major renovations)

Germany: 'Haus und Wohnung' Statistics, German Housing Ministry, 1993, 1994.

(Volumes of house building in the 'old' Bundesländer, divided between new building and modernisation and renovation work)

their emphasis from the quantity to the quality of dwellings (see chapter five). The significant increase in the UK since the beginning of the 1980s may be partly explained by a growing rate of home ownership in the UK, or a diversion of funds from new construction to improvement work.

These figures must be treated with caution. However, even taken as an approximation for the division of housing investment between repairs and new build, the data is quite significant. The rate of investment in the UK in new dwelling construction is even lower in comparison to other countries, after repairs and renovations are taken into account. This might be part of the explanation for the lower levels of dwellings built per thousand population in the UK compared to other countries (see section 3.3, Figure 3.2).

Currently, in each country it is only improvement work on the existing stock carried out by productive enterprises that is recorded or estimated in the United Nations data¹. Therefore, where households have engaged in 'do it yourself' improvements this will not have been measured as housing investment for most countries in the period being examined. Definitions from each of the four countries indicate that general maintenance work by households on their dwellings is, generally, not included, although the UK national data does appear to make some provision for this.

It might also be argued that both GFCF and house building data may not accurately represent housing investment activity if there is a large volume of work in the black economy. However, there is not significant evidence to suggest that there is a persistent and differential underestimation of housing investment because of 'black economy' activity. Therefore, while there may be some inconsistency concerning the inclusion of estimates of 'do it yourself' work and activity in the 'black economy' in the housing investment indicator, it is likely that these items would not alter the overall positions of the four countries housing investment levels significantly. It is, therefore, an assumption of this research that this housing investment indicator does provide a useful indication of differences between countries.

(ii) Dwellings constructed per 1000 inhabitants

This indicator gives a measure of dwellings that have been constructed in the course of a year in each country. That is the number of dwellings that have been completed, rather than those

¹Information from the United Nations on its compilation of housing investment data indicates that revisions are now being made to definitions of housing improvements, repairs and maintenance which will include 'do it yourself' activities by householders.

authorised, started or under construction, expressed per thousand inhabitants. Detailed descriptions of definitions of 'dwellings' and any country based adjustments are given in the United Nations Annual Bulletin.

This measure is used in addition to the first so that comparisons can be made regarding the actual numbers of dwellings that have been built in each country, as an alternative to the value of new construction and improvements.

(iii) Net additions to the stock per 1000 inhabitants

Dwellings constructed per 1000 inhabitants, gives a gross figure of additions to the stock as a result of new house building. However, an issue that must be addressed is that some of this building will replace dwellings that have been demolished, and further changes in the stock will occur as a result of changes in use. Therefore, data is also presented for 'net additions to the stock' which will give a more complete picture of how housing investment directly affects the housing stock of a country.

This shows, then, the net changes in the stock taking into account total stock increases (i.e. new building and positive changes in use) and total stock decreases (i.e. demolitions and negative changes in use). The resulting 'net additions' gives a net total of new stock that is added, per annum. Using the net additions indicator is one method of applying the stock adjustment model outlined in chapter two.

While these three indicators are essentially all measuring different specific components, they can be used more broadly as alternative ways of representing housing investment. That is not to say that they are interchangeable measures which may replace each other. Indeed direct comparisons between the indicators cannot be made, because of what is included in the figures and how they are expressed. For example, the GFCF in residential buildings data, includes estimates of improvement work which are not included in the two other indicators, and the net additions to stock data distinguishes itself by accounting for decreases as well as increases in the stock.

In the econometric analysis to follow in chapter four, these three indicators will be used as the main 'dependent' variables when testing the different hypotheses on housing investment. Because of the differences between the three main indicators, noted above, it is likely that the results of the later statistical testing will vary according to which indicator is used. In addition it is highly probable that different explanations for housing investment differences will result

from the three different indicators. Some further comments on this point will be made in chapter four.

3.3 Housing investment data

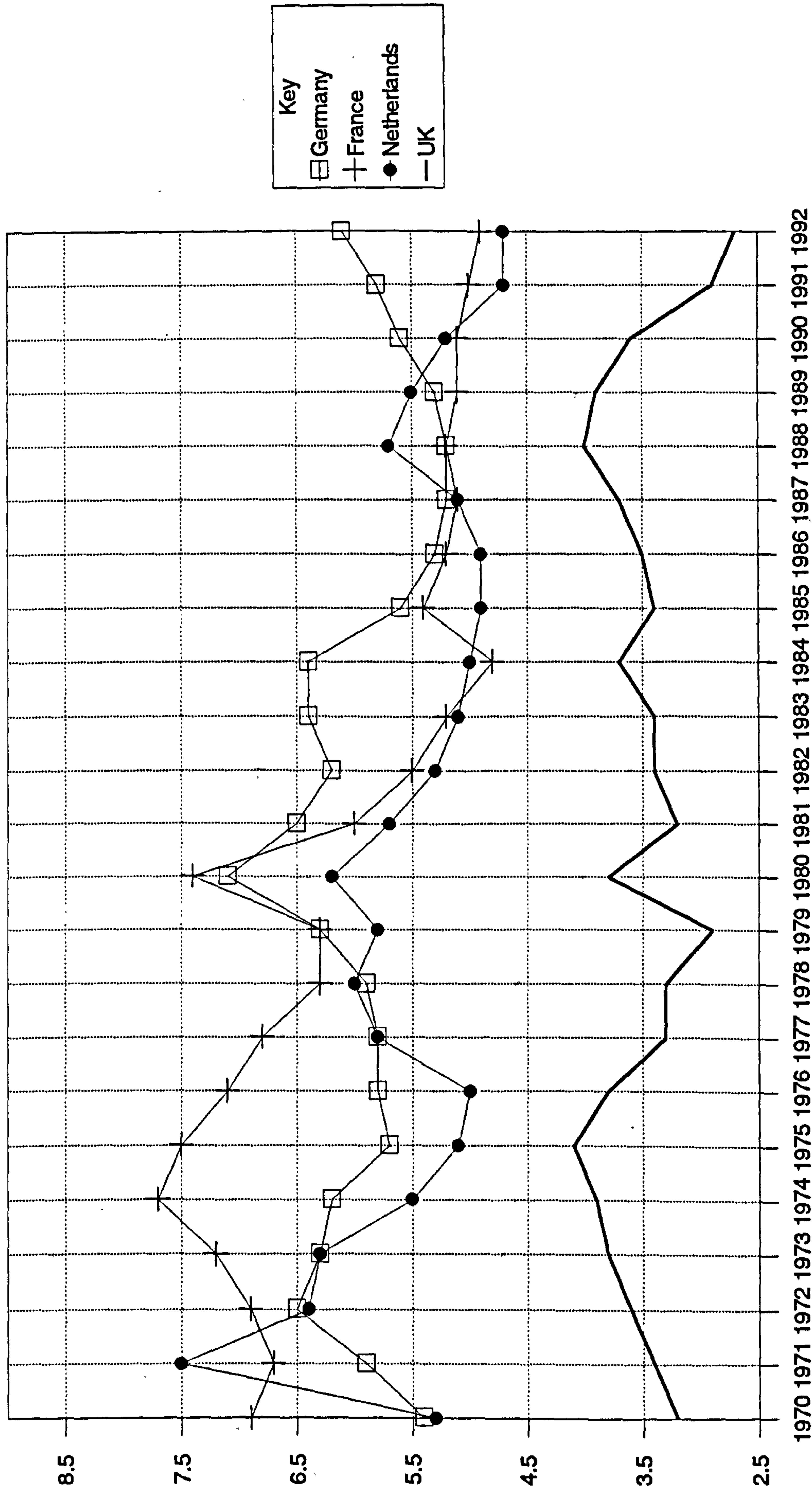
Figures 3.1-3.3 provide data on housing investment levels in France, Germany, the Netherlands and the UK between 1970 and 1992. These figures illustrate the main trends in housing investment over the time period being examined. Figure 3.1 presents data on the indicator of GFCF in residential buildings as a percentage of GDP (see below).

The general trend in all of the countries has been a reduction in housing investment levels over the period. Only in Germany was housing investment higher in 1992 than in 1970. This situation can be explained, in the main part, by the reunification of Germany and the resulting necessary increases in capital expenditure on housing. During the twenty year period, fluctuations within countries and differences between countries are apparent. Most prominent is the much lower rates of GFCF in housing in the UK than in the other three countries, throughout the period. While in France, Germany, and the Netherlands levels of housing investment as a percentage of GDP ranged between around 5 and 7.5 per cent, the UK was some two percentage points lower in a range of 2.7 and 4 per cent. However, in spite of differences in overall investment levels, the graphs in Figure 3.1 do reveal some similar patterns in the fluctuations over time in the different countries.

All four countries tended to experience a fall in housing investment in the second half of the 1970s, and a slight increase in 1980. From this 'peak' there has been an overall decline in all countries. The decline has been most significant in France, where housing investment fell from 7.4 per cent of GDP in 1980 to just 4.9 per cent in 1992. In France there has been an almost continuous decline since 1980. This was also the case in Germany until the late 1980s when levels of housing investment rose by nearly one percent of GDP between 1988 and 1992, to 6.1 per cent. The UK and the Netherlands appear to have experienced similar patterns in fluctuations in their investment levels since 1980, with a general decline broken in both cases by an increase around 1988/89.

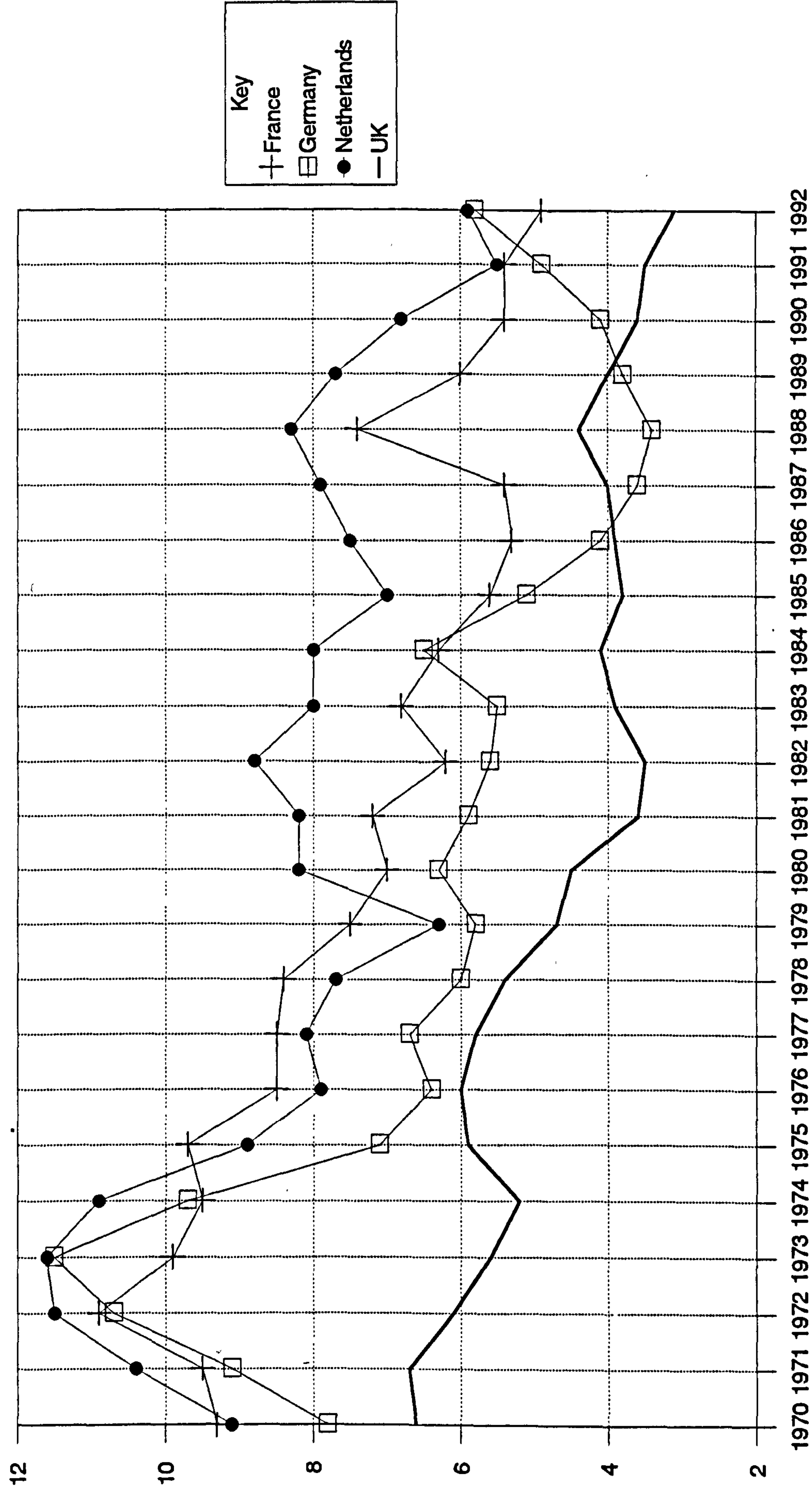
Figure 3.2 illustrates the number of dwellings completed per 1000 inhabitants. While the first indicator made an allowance for comparing the relative size of economies, the data in Figure 3.2 allows for differences in population size between countries. Many similar patterns in construction are apparent, and again an overall decline in dwelling completions is revealed over time. Differences between the UK and the three other countries are significant in the early

Figure 3.1: GFCF in residential buildings as a % of GDP



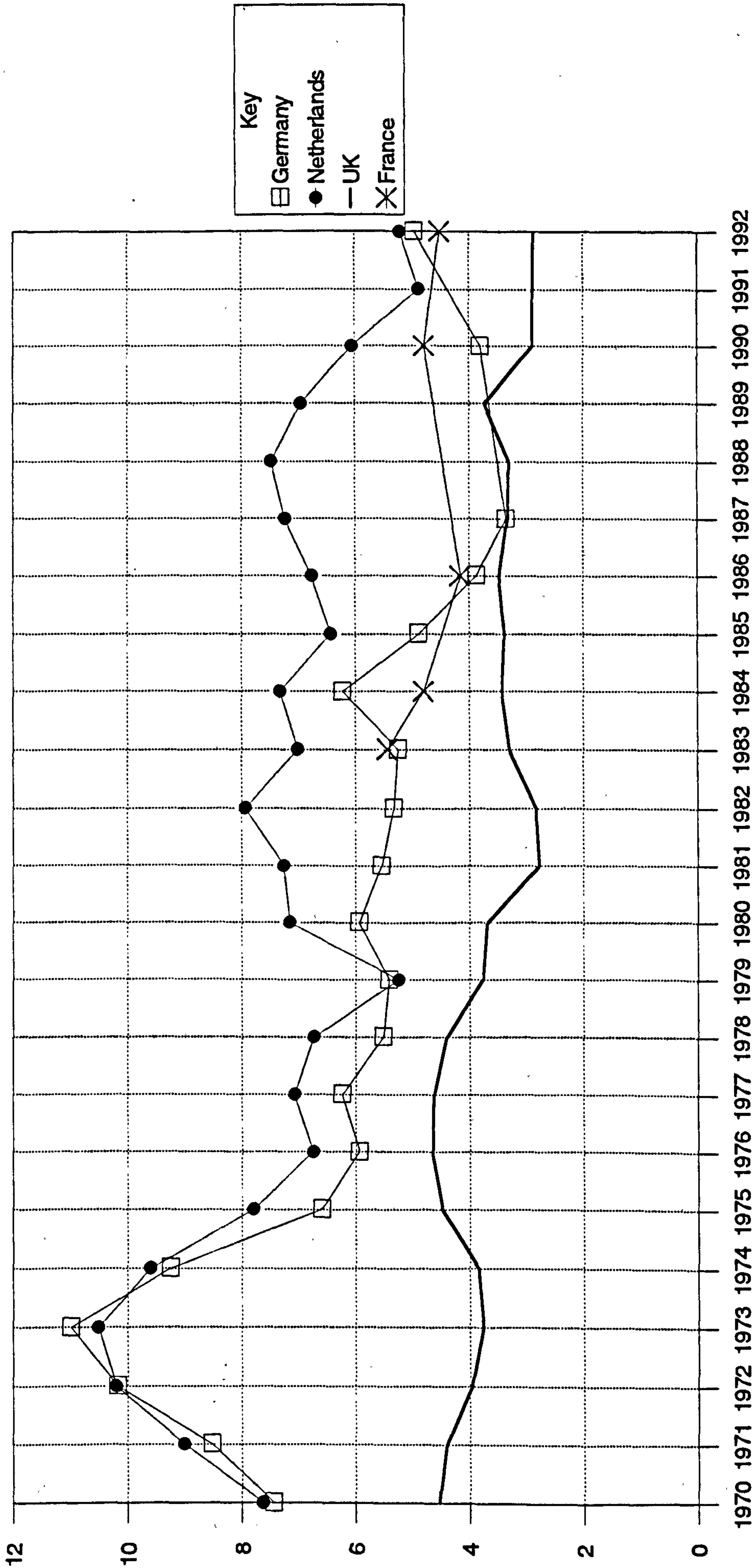
Source: United Nations (1993)

Figure 3.2: Dwellings completed per 1000 inhabitants



Source: United Nations (1993), European Commission (1994)

Figure 3.3: Net additions to stock per 1000 inhabitants



Note: Net additions to stock = total stock increases - total stock decreases per 1000 inhabitants

Source: United Nations (1993)

1970s. In France, Germany and the Netherlands construction levels stand at approximately 11 to 11.5 dwellings completed per thousand inhabitants, while in the UK levels fell to over half of this with only 5.2 per thousand inhabitants. Over the twenty year period France and Germany, in particular, follow very similar patterns in dwelling construction and deviate from each other only in 1988, when a small increase is experienced in all countries except Germany.

The UK tends to have the lowest level of housing investment measured in terms of dwellings constructed. Only Germany falls below the UK in its number of dwellings constructed per thousand inhabitants, in 1988, to a low of 3.4 compared to the UK's 4.4 in the same year. While France tended to have the highest proportion of housing investment as a percentage of GDP over the twenty year period, using the construction of dwellings indicator the Netherlands is the country achieving the highest average levels.

Some of the differences in trends between Figures 3.1 and 3.2 may be explained by investments in repairs and renovations, and could in addition reflect the varying methods by which a money volume figure is calculated from construction statistics in the different countries.

Finally, an examination of the net additions to the stock in Figure 3.3 reveals similar patterns to those in Figure 3.2. By taking into account both increases and decreases in dwelling stocks the data in Figure 3.3 reduces slightly the fluctuations apparent in the previous graph, both between countries and over time within countries. This data can, then, reveal the overall trends in final 'net' investment more clearly. Data for this indicator was only available for Germany, the Netherlands and the UK.

Using the net additions to the stock indicator the UK, again, experiences the lowest levels of investment. The difference between the UK and both Germany and the Netherlands is also particularly apparent in the early 1970s, when the latter two countries had well over twice the volume of net additions as did the UK. The tendency to a gradual decline in housing investment over the twenty year period is also clear using this indicator, as net additions to the stock fell by at least two per thousand inhabitants in Germany, the Netherlands and the UK.

When analysing data on net additions in conjunction with data on total stock increases and decreases, see Table 3.2, it can be seen whether the changes in stock are a result of a high building rate (i.e. new investment) or a high rate of demolition and changes in use.

The data shows that the Netherlands, in 1970, was in the position of having a relatively small housing stock relative to its population with just 289 dwellings per thousand inhabitants. By

Table 3.2: Total stock increases and decreases, 1970-1992

Year	Total stock increase	Total stock decrease	Stock per 1000 pop
Netherlands			
1970	118000	18600	289
1975	122000	15000	320
1980	116300	15000	343
1985	103400	10100	372
1990	101400	11500	390
1992	90400	11600	393*
Germany			
1970	495600	44100	341
1975	462700	54200	382
1980	452300	86900	413
1985	387200	88000	443
1990	254600	13800	422
1992	333300	16100	426
UK			
1970	368000	117000	346
1975	332000	82000	364
1980	252000	45000	383
1985	213500	22100	396
1990	179000	13000	408
1992	179000	13000	411

* 1991

Source: United Nations, 1993; European Commission, 1994.

1991 this had been increased to just under 400 dwellings per thousand inhabitants by maintaining a very low rate of decreases to the existing stock (i.e. low levels of demolition and negative changes in use) and ensuring a steady rate of new building and increases to the stock. In comparison, the UK has, over the period, reduced its decreases to the stock, at the same time as making reductions in new building. This has resulted in a slower and less significant increase in the dwelling stock than in the Netherlands, to just over 400 dwellings per thousand inhabitants in 1992. In Germany, the dwelling stock relative to the population stood at approximately the same level as that in the UK in 1970. However, by continuing a higher rate of new construction, in spite of its significant decreases to the stock, Germany increased its stock to 450 dwellings per thousand inhabitants by 1987. This levelled off to 426 dwellings per thousand inhabitants by 1991, following the increase in population due to reunification.

These trends in housing investment illustrated in the data provided above will be examined in more detail in later chapters.

3.4 Summary

An examination of the data available in regard to housing investment indicators has revealed many differences in patterns and trends in investment in Europe. Differences have been indicated both between countries and over time within countries.

- In spite of some fluctuations, a general trend of overall decline in housing investment can be identified in most countries during the period 1970-1992. Germany is the only exception, as revealed in the indicator of GFCF in residential buildings as a percentage of GDP, experiencing a small increase in investment during the early 1990s.
- This decline is reflected most dramatically in the data on dwellings completed per thousand inhabitants. Most countries were constructing half as many dwellings in 1992 as they were in 1970.
- Many countries have followed similar patterns in housing investment fluctuations over the time period. This is seen particularly in the data illustrating dwellings constructed per thousand inhabitants.
- Significant differences in the levels of investment can be identified between the UK and the other countries being examined. The data for all three given indicators reveals

substantially lower rates of investment in housing in the UK over the period 1970-1992.

The following four chapters have the aim of examining and exploring these differences, using a number of different forms of methodological analysis. It is hoped that this examination will be able to discover whether explanations for these differences can be found.

Chapter 4: Broad national aggregates and housing investment: a statistical analysis

4.1 Introduction

The aim of the chapter is discover to what extent housing investment in France, Germany, the Netherlands and the UK can be explained by certain economic, demographic and housing stock factors using statistical testing. Many of the possible determinants of housing investment that were introduced in chapters one and two will not easily stand up to statistical investigation. These include determinants such as systems and structures of housing provision. While it may be possible in statistical investigation to evaluate such determinants using dummy variables or other representational methods, alternative qualitative methods will be used in later chapters to investigate these factors.

The possible determinants that will be tested relate to the first four hypotheses set out in chapter one. The results of testing a variable measuring levels of housing expenditure as a proxy for testing the policy hypothesis statistically will also be reported. This chapter will present these hypotheses and discuss their derivation in relation to theory outlined in chapter two. The variables to be used in each case will be outlined. A review of the statistical methodology will then be presented. This relies on correlation and regression analysis, and includes econometric model building. Bi-variate analysis will test each of the four hypotheses using single variable regression and multi variate analysis will test a number of variables together to examine their combined effect on housing investment. Problems in using such research methods and in the data sets being used will be discussed. The testing and analysis of the results will be demonstrated and conclusions presented.

4.2 Hypotheses for statistical testing and selection of variables

Section 2.2 in chapter two outlined certain theories about economic determinants of housing investment. A number of different factors were identified as possible determinants. The macro-economic and demographic factors to be tested in this chapter are those that have been identified as meeting two criteria: firstly, that theory suggests the factor might have a significant effect on the dependent variable, and secondly, that the nature of the factor lends itself to statistical testing. Omitting some factors at this stage is not an indication that their potential effects on housing investment outcomes are ignored. Rather that it is not always possible to analyse all factors using the same methodology.

Four main factors have been indicated as possible housing investment determinants that might be tested statistically: total investment, economic growth, demographic growth and the size of the dwelling stock in the different countries. The testing of the government expenditure variable is also reported. The four behavioural hypotheses to be tested and their theoretical grounding discussed in chapter two, are outlined below. The selection of the independent variables to be used in each hypothesis is also discussed.

Hypothesis 1: Housing investment levels are a function of overall investment levels in a country. Differences in housing investment between countries can be explained by differences in total investment levels.

It was argued in chapter one that levels of housing investment might be determined by levels of overall investment in an economy. Thus an explanation for higher levels of housing investment might be that a particular country has a high investment economy. This hypothesis tests whether there is a relationship between housing investment and total investment that is determining overall levels of housing investment in each country. There are many theories about the determination of total investment levels (see Harvey 1989, Black 1982, Griffiths and Wall 1993). These theories are not being tested. Here the significance of the relationship between the housing investment component within total investment is being tested. Given that housing investment is by definition part of total investment in an economy there is inevitably a link between the two measures. Changes in housing investment might, however, broadly be explained by changes in total investment or by factors more specific to housing. As an initial hypothesis this will, then, investigate whether the housing component of total investment is explained by investment theories or more specific theories relating to housing.

Total investment in an economy will be represented in the testing as total Gross Fixed Capital Formation in a country. This data is collected in the UN's Annual Bulletin for Housing and Building Statistics (United Nations, 1993). GFCF in residential buildings is derived from the measure of total GFCF in this source. For the purpose of making comparisons total GFCF and GFCF in residential buildings will be expressed as a percentage of GDP.

Hypothesis 2: Housing investment levels are related to rates of economic growth in a country. Different levels of housing investment are therefore due to differences in rates of economic growth.

This hypothesis tests theory which suggests that economic growth determines levels of housing investment. It was suggested in chapter one that a country experiencing higher levels

of economic growth might through increased resources and incomes generate increased demand for housing and housing investment. As discussed in chapter two (section 2.2) much of the theory surrounding the relationship between economic growth and housing investment is concerned with cycles of economic growth or building cycles. In simple terms it might be expected that rapid growth would tend to increase investment and low growth means lower investment (Black, 1982). However, conflicts in this theory were found in many studies testing the relationship between growth and investment. Harvey's theory of capital accumulation stated that investment in housing would occur according to cyclical fluctuations in the construction industry, due to a spillage of surplus capital within the sector, into housing investment. Kuznets (1973) study found this very difficult to ascertain in an examination of ten countries and discovered that significant time lags need to be incorporated in any examination of the relationship between growth and capital formation.

Further studies showed a highly positive relationship between the two factors (Aschauer, 1989) and a negative relationship between the two factors (De Long and Summers, 1991). There is also a question surrounding the cause and effect relationship between growth and investment, as Ball and Wood's (1994) study examines whether building investment affects economic growth.

There is then conflicting evidence from other studies surrounding the perhaps rather simplistic theory that economic growth can determine the rate of increase in housing investment. Problems arise in particular because theory tends to relate more to general investment and not housing investment, and the housing component within total investment has not been examined to the same extent. The testing to be carried out has not examined the long term cyclical patterns of economic growth and housing investment due to the limited time period of the study. By examining the statistical relationship between economic growth and housing investment it can, however, test the hypothesis that housing investment is determined by economic growth. As such this hypothesis can test theory specifically in relation to housing investment.

Economic growth in a country may be represented by a number of different indicators. The indicator used would depend to some extent on what exactly is being measured. The rate of increase in Gross Domestic Product, Gross National Product and the national expenditure can all be used to measure economic growth. Here an indicator of growth is needed that measures an increase in the rate of output in the economy. This is best represented by the rate of growth of GDP.

Data for the four countries, France, Germany, the Netherlands and the UK has been taken from the OECD's Economic Outlook (1993). The data used in calculations represents growth of real GDP or the percentage changes, after allowing for inflation, from the previous period. While this reflects growth rates overall, data on the growth of GDP per head will also be used, so that differences in population size can also be taken into account. Some further adjustments were made to the GDP per head data to illustrate the rate of growth. A moving average was calculated and the data reflects the percentage change in this moving average.

Hypothesis 3: Housing investment levels can be explained by demographic factors. Different rates of demographic growth in different countries result in different levels of housing investment.

The theoretical links between changes in demographic variables and levels of housing investment were examined in chapter two. It was ascertained that an increase in the number of households or in the population, might be expected to lead to an increase in future need and/or demand (Kuznets, 1973; Holmans, 1995). The behavioural assumptions involved in the demographic change/housing investment change link depend on the processes which are seen to bring about the change. These may be different depending on whether it is mainly a change in need or a change in demand which is perceived to be the stimulus for change. For a change in need without any change in demand to bring about an increase in housing investment there must be behaviour by governments which reacts to this need and puts into effect measures to promote investment. For a change in demand to bring about the extra investment there must be behaviour by the actors in the market place which results in more production. A future need or demand for housing investment must be met by an actual increase in housing investment. This hypothesis therefore tests the theory that changes in demographic growth leads to changes in the future levels of housing investment.

To test this hypothesis indicators that reflect population growth and household growth are needed. It is expected that housing investment might increase due to increases in demand for dwellings, or due to government responses to increases in need as a result of demographic growth. However, it is unlikely that housing investment will respond immediately, and the incorporation of time lags into this data is therefore needed. The appropriate lags built into the data may be different for different countries, depending for example, on specific housing market conditions and the accuracy of the forecasting of demographic growth by governments and housing investors.

Population data has been taken from the OECD National Accounts (1992), as an estimate of mid-year population (thousands). Growth rates in this data were determined by calculating the

proportionate change on four year lagged data. Data on the number of households in the four countries was not available over the whole period 1970-1992. However, sufficient years were available to carry out a linear interpolation on the data so that an estimate of households for each country was established. Sources for the original data included Eurostat (1992), European Commission (1993) and other national statistical sources. Growth rates were determined by calculating proportionate changes on two and four-year lagged data for households.

Hypothesis 4: Levels of housing investment are influenced by the size of the dwelling stock in a country. Differences between countries can be explained by relative housing stock sizes.

Theory outlined in chapter two suggests that indications of previous construction levels and the size of the existing dwelling stock might determine future levels of housing investment. These theories such as the accelerator principle and the capital stock adjustment model, have been related more usually to other forms of investment, such as manufacturing investment (Panic and Vernon, 1975; Kennedy, 1986; Catinat, 1987; Ford and Poret, 1990). However, principles of the capital stock adjustment model in particular can be seen to be relevant to housing investment. This model states that investment is related positively to changes in levels of output and negatively to the existing stock. Therefore, if, for example, the size of the dwelling stock relative to a countries' population, increases it might be expected that future levels of need or demand will fall. As need and demand fall due to the capacity of the existing stock to house the population then, *ceteris paribus*, governments and private sector builders will not invest in new housing. This hypothesis can therefore test the theory suggesting that housing investment might be influenced by the size of the existing dwelling stock, which might reflect the expected level of demand and need for new dwellings.

Data on the size of the dwelling stock can also be taken from the UN's Annual Bulletin of Housing and Building Statistics. For the four countries being examined data is collected in the form of the number of units in the dwelling stock per thousand inhabitants. Expressing the data per thousand inhabitants allows for a better comparison and makes the size of the variable more manageable for statistical testing. Some gaps in this data were made up with information from national statistical sources. Significant gaps in the French data were made up using linear interpolation.

These four hypotheses test the applicability of the stated theories as individual explanations for levels of housing investment. This will use simple linear regression analysis or bi-variate analysis, as described below. In addition to this a number of the variables outlined above will be tested together to examine their combined effect on housing investment using multi-variate

analysis. Bi-variate analysis tests each hypothesis independently and can examine the nature of the relationship between each separate explanatory factor and housing investment. Multi-variate models play an important role in combining the various hypotheses to examine the effects of explanatory factors together on housing investment. Two multi-variate models were examined.

Firstly, a 'need' model examined the combined effect of demographic changes and the size of the stock on housing investment. This model tested the statistical relationship between both demographic growth and the size of the stock, and housing investment. While these factors have been tested individually in the bi-variate analysis, it is likely that in reality housing investment is influenced by a number of different factors at the same time. By combining the hypotheses relating to the dwelling stock and demographic growth this model can examine the effect on investment levels of the size of the stock and levels of need as indicated by household and/or population growth. This model, therefore, goes some way to testing the theory of the 'capital stock adjustment model' discussed in section 2.2, chapter two. The need model assumes that housing investment is simultaneously a positive function of increases in population or number of households and a negative function of the size of the stock. The need is assumed to be greater the larger the demographic increase relative to the size of the stock. The processes by which this occurs is not stated explicitly within the model. The processes could involve reactions to the increased housing requirements by both decision makers in governments and the participants in housing markets.

Secondly, a 'need and growth' model examined the combined effect of demographic change variables, the size of the stock and economic growth on housing investment. By adding a variable that measures economic growth to the need model, the statistical testing can also evaluate how growth in an economy, together with households need for dwellings and the number of available dwellings, affect housing investment. The need and growth model therefore assumes that an extra stimulus and an improved potential for meeting need comes within a housing system when higher growth results in more resources.

The explanatory variables described above have been selected to enable considered and worthwhile statistical analysis. An examination of the different data sets selected to undergo statistical analysis is vital if the results are to be meaningful. At this stage a basic exploration of the data has been carried out to ensure the suitability of the different variables to statistical analysis. Some further discussion related to the data and the types of problems encountered in the application of statistical methods to be used will be made in the next section. The data sets to be used in the analysis are listed in Appendix 1.

4.3 Statistical methodology

Statistical testing of the four hypotheses will be undertaken using correlation and regression analysis. Initially, bivariate regression analysis will examine the relationship between each of the independent variables and the dependent variables - the indicators of housing investment. Bivariate regression analyses the linear relationship between a dependent variable, Y , and an independent or explanatory variable, X .

The equation that represents this linear relationship is:

$$Y_i = b_0 + b_1 X_i + e_i$$

where, b_0 and b_1 are unknown parameters and the e terms are independent random error variables.

This simple linear regression analysis is based on the following assumptions:

- that the error term is normally distributed, with a mean of zero and constant variance
- that the error terms are not correlated or unrelated to each other
- that the explanatory variable assumes fixed values in repeated sampling
- that for any fixed value of the independent variable X , the dependent variable Y is normally distributed with a constant variance.

The strength of the effect of one variable on another, is therefore being tested. In addition to this bivariate analysis, multi-variate regression analysis will also be carried out. This analysis measures the degree to which a number of independent variables together might be affecting or determining change in the dependent variable. While any one factor may have a strong effect on a dependent variable, in reality a number of factors are likely to be responsible for determining change. Multiple linear regression extends bivariate regression by incorporating multiple independent variables. The model can be expressed as:

$$Y_i = b_0 + b_1 X_{1i} + b_2 X_{2i} + \dots + b_p X_{pi} + e_i$$

where X_{pi} is the value of the p th independent variable for case i .

The additional assumption (to those of the simple linear regression model) is that there is no exact linear relationship between the independent variables (Salvatore, 1982; Norusis/SPSS Inc., 1992).

Regression analysis has been carried out utilising the computer package SPSS (Statistical Package for the Social Sciences). The results of the regression applications will be analysed in the main part by an examination of the R^2 or the coefficient of determination. This measures the proportion of total variability in the dependant variable that is explained by the equation of independent variables. In an examination of a linear model, if all the observations fall on the regression line, R^2 is 1. If there is no linear relationship between the dependent and independent variables R^2 is 0. As additional explanatory or independent variables are included in multiple regression analysis, the R^2 increases. To take into consideration the reduction in degrees of freedom as additional independent variables are added, the adjusted R^2 is computed. Therefore the adjusted R^2 is a more reliable measure for multiple regression analysis.

In addition to the R^2 measure in regression analysis, two further indicators can be examined that test the significance of the results. These are the F statistic and the t statistic. The F statistic tests the overall significance of the regression. A regression equation can be said to be supporting a hypothesis where the F statistic meets the necessary requirements at a given level of confidence.

Similarly, the t statistics can be used to test the statistical significance of the independent variables coefficients in a regression equation. Significant and large t values support the reliability of the individual regression coefficients.

To avoid potential errors in the analysis or interpretation of results, the assumptions and the data used must be carefully examined. It will be useful to give a brief overview of the main problems associated with this type of statistical analysis, focusing particularly on problems that appear most relevant to this work.

Simple tests can be carried out to ensure, for example, that residual variables are independent and normally distributed with a constant variance, or that there are no 'outlier's' (very large or very small residuals that distort the overall results).

More significant a problem is that of multicollinearity. This occurs in regression analysis when there is a high correlation between two of the independent variables. This can have the effect of restricting the generality and applicability of the estimated model. The SPSS User Guide

notes that "Collinear variables...provide very similar information, and it is difficult to separate out the effects of the individual variables" (ibid., 1992, p342). However, it is possible to carry out tests to detect collinear variables and examine the extent to which collinearity has affected estimated results. Solutions to multicollinearity include making changes to the explanatory variables, collecting extra data or, in some cases, deleting the appropriate variables from the model.

A further problem is that of heteroscedasticity. This occurs when the variance of the error terms for all values of the independent variables is not constant (a violation of one of the assumptions listed earlier). This leads to "biased and inefficient estimates of the standard errors (and, thus, incorrect statistical tests and confidence intervals)", (Salvatore, 1982, p183). Causes of heteroscedasticity include cases where averaged data is used, cases where variances depend on the mean and cases where variances depend on the explanatory variables. Again there are a number of ways that heteroscedasticity can be detected and overcome.

Autocorrelation is an additional problem in multiple regression analysis. This occurs when an error term in one time period is positively correlated with an error term in the previous time period. This is a particularly common problem when time-series data is being used. Again it leads to a biased standard error and renders the statistical tests and confidence intervals incorrect. There are several alternative tests that can check for autocorrelation and ways to correct the problems. (A full discussion of problems associated with multiple regression analysis and the different methods of detection and correction can be found in Wetherill, 1986).

With respect to this methodology the following statistical tests on housing investment have been carried out:

i) Bi-variate analysis of the dependent variables of housing investment with the independent variables total investment, the growth of Gross Domestic Product, growth of population, growth of households and the size of the housing stock.

ii) Multi-variate analysis of the dependent variables of housing investment using a number of explanatory variables together in more complex models. Two models have been tested. Firstly, a 'need' model examined the combined effect of demographic changes and the size of the stock on housing investment. Secondly, a 'need and growth' model examined the combined effect of demographic change variables, the size of the stock and economic growth on housing investment.

In addition to the four main hypotheses discussed above, the results of testing a government expenditure variable as a proxy for housing policy will be briefly reported later in this chapter.

In both forms of regression analysis results are judged to be significant at the 95 per cent confidence level (0.05). A number of different 'lags' on data have been tested. Where lagged data has been used the results reported represent the 'best' results, or results indicating the strongest relationships between variables.

Testing has utilised the three indicators of housing investment introduced in chapter three. It should be noted, however, that data for net additions to the stock was limited and that there are fewer 'cases' in the testing for this dependent variable than there are for the GFCF in housing and number of dwellings completed indicators. Due to lack of data there was no statistical testing using the net additions dependent variable for France.

The nature of the data being employed in this testing means that in some cases the dependent variable represents an overall *level* in an indicator, while the independent variable represents a *change* in an indicator. While this should not adversely affect the results of this testing it is acknowledged that, "...one would usually expect 'change' models to have lower explanatory powers than 'absolute level' models" (Kleinman et al, 1990).

The statistical testing that is reported uses time series analysis. This analyses data over time (1970-1992) on a country by country basis. This will test the significance of the relationships between broad national aggregates and housing investment over time *within* countries. It would also have been possible to carry out cross-sectional analysis of data. Cross-sectional analysis would aggregate data for 1970 to 1992 and would form a basis for explaining differences in investment *between* countries. This form of statistical analysis is not reported here, because it was thought that using aggregated (averaged) data for a comparison of just four countries would not provide significant results. Cross-sectional analysis can also take account of only one independent variable and could, therefore, not be used in the multi-variate analysis. Limitations to results also come with using averaged data in this way.

Some cross-sectional analysis of the broad national aggregates being examined here was, however, undertaken in a wider and related study on housing investment. This study examined the causes of differences in housing investment in eleven of the twelve European Union countries. The results from the testing of this wider group of countries indicated significant relationships, *between* countries, for total investment and demographic change and housing investment, but less significant relationships for economic growth and housing stock size and housing investment (see Oxley and Smith, 1995b).

4.4 Bi-variate regression analysis

4.4.1 Housing investment and total investment

The hypotheses being tested here can be formally expressed as,

$H = f(I),$
 $D = f(I)$ and
 $N = f(I)$ where

H = Gross Fixed Capital Formation in housing as a percentage of GDP,
 D = Number of dwellings completed per 1000 population,
 N = Net additions to the stock per 1000 population, and
 I = Total Gross Fixed Capital Formation as a percentage of GDP.

The relationships between H and I , D and I and N and I were investigated within countries for the period 1970-1992. The results of the linear regression analysis on a country by country basis are summarised in Table 4.1. For each country equations were generated for

$H = a_1 + b_1I,$
 $D = a_2 + b_2I,$ and
 $N = a_3 + b_3I$
where a_1 , a_2 and a_3 are constant terms and b_1 , b_2 and b_3 are coefficients for I .

The data reveals statistically significant relationships between variables in most of the equations. Using the housing investment indicator, D (dwellings completed per 1000 population), the F tests on the regression equations and the t tests on the coefficients values produced significant results at a 0.05 confidence level, for all four country's equations. The strength of the relationship between dwellings completed and total investment as measured by the R^2 does, however, vary between countries. The data for France produces an R^2 value indicating that 67 per cent of the variation in dwelling production is accounted for by the level of total investment, this value was 56 per cent for the German data. For the Netherlands the regression equation produced a R^2 of only 0.22.

The values of the coefficients for the independent variables reflect similar variations when compared between countries. In France and Germany, for a given change in investment there is a greater effect on dwelling production than in the UK or the Netherlands.

Table 4.1 Housing investment and total investment

Summary of regression analysis for the hypotheses that

$H = a_1 + b_1 I$

$D = a_2 + b_2 I$

$N = a_3 + b_3 I$

Country	H				D				N			
	R ²	F	b ₁	t	R ²	F	b ₂	t	R ²	F	b ₃	t
UK	0.51	*	0.19	*	0.34	*	0.47	*	0.21	*	0.22	*
Germany	0.1		0.07		0.56	*	0.76	*	0.55	*	0.65	*
France	0.71	*	0.41	*	0.67	*	0.72	*	—		—	
Netherlands	0.21	*	0.11	*	0.22	*	0.36	*	0.05		0.24	

* = F and t significant at 0.05

Table 4.2 Housing investment as a % of total investment, average 1972-1992

Country	%
Germany	28.12
France	27.77
Netherlands	26.37
UK	19.48

Source: United Nations (1993)

Examining the indicator, H (housing investment as a percentage of GDP), reveals a slightly higher degree of association with the explanatory variable I, in the UK and France, than was achieved using the dwelling production indicator. In the Dutch data, again, only around 20 per cent of the variation in housing investment is associated with changes in total investment, although the regression equation is statistically significant. Neither the regression equation, not the t statistic were significant for the German data using the housing investment indicator. The values of the coefficients are also all considerably lower for the housing investment equation when compared to the dwelling production equations.

Using the net additions to the stock indicator, N, with housing investment produced statistically significant equations for Germany and the UK, but not the Netherlands. While in Germany 55 per cent of the variation in net additions to the dwelling stock is associated with total investment levels, this is true for only 21 per cent of the variation in the UK. The value of the coefficient b_3 also indicates a greater effect on net additions in Germany for a given change in total investment than is true for the UK.

Differences within countries between the housing investment indicators are likely to be related to different items included in the measures of housing investment. Indeed this will be true throughout the testing; as was discussed earlier the different indicators are not interchangeable and cannot be taken as proxies for each other. Therefore where an increase in total investment appears to have a greater effect on the dwelling production indicator than the housing investment indicator, this may be due to estimates of improvement and renovation work being included in the latter. Improvement and renovation work might consequently be less responsive to changes in total investment than is new dwelling construction. The regression tests for the German data reflect this difference most significantly. However, further testing on the individual components within housing investment would need to be carried out to conclude that this was the cause of differences. This level of testing was not possible because of a lack of reliable and consistent data for the countries being examined.

Between countries the results indicate that total investment does to some extent affect levels of housing investment. In all four countries greater levels of GFCF leads to an increase in housing investment. This is not surprising as housing investment is a component of total investment. The share of housing investment in total investment does, however, vary between the four countries. Table 4.2 shows the average percentage of housing investment in total investment over the period 1972-1992. This reveals a much lower proportion for the UK than the three other countries.

The strength of the relationship between housing investment and total investment in the statistical testing also varies between the countries. France and Germany appear to have a stronger relationship between housing investment and total investment and in terms of dwelling production are more responsive to changes in total investment than are the UK and the Netherlands. However, in most cases a large part of the change in housing investment levels is still to be explained. This leads to the conclusion that while there is some value in the hypothesis that total investment contributes to housing investment outcomes, it is clear that other factors also play a significant role. The results for these four countries reveal that housing investment is not purely a factor of the level of total investment in the economy, and that further housing-related factors should be examined.

4.4.2 Housing investment and economic growth

The hypotheses being tested in respect to the growth of Gross Domestic Product are

$$H = f(g),$$

$$D = f(g) \text{ and,}$$

$$N = f(g) \text{ where}$$

g = proportionate annual change in Gross Domestic Product (GDP).

Regression equations were run on a country by country basis to investigate the relationships between g , and H , D and N . The following equations were formulated:

$$H = a_1 + b_1g,$$

$$D = a_2 + b_2g, \text{ and}$$

$$N = a_3 + b_3g$$

where a_1 , a_2 and a_3 are constant terms and b_1 , b_2 and b_3 are the coefficients for g .

In addition a second variable representing economic growth was tested, g^+ . This variable reflects the proportionate annual change in Gross Domestic Product per head in each country. Three further equations were thus formulated:

$$H = a_1 + b_1g^+$$

$$D = a_2 + b_2g^+, \text{ and}$$

$$N = a_3 + b_3g^+.$$

Economic theory and earlier discussion in chapters two and three noted that an increase in economic growth might be expected to increase investment and potentially housing

Table 4.3 Housing investment and economic growth

Summary of regression analysis for the hypotheses that

$$H = a_1 + b_1 g$$
$$D = a_2 + b_2 g$$
$$N = a_3 + b_3 g$$

$$H = a_1 + b_1 g +$$
$$D = a_2 + b_2 g +$$
$$N = a_3 + b_3 g +$$

Country	H				D				N			
	R ²	F	b ₁	t	R ²	F	b ₂	t	R ²	F	b ₃	t
Equations for 'g'												
UK	0.012		0.15		0.023		0.071		0.00072		0.007	
Germany	0.048		-0.057		0.01		0.12		0.095		0.31	
France	0.078		0.17		0.22	*	0.516	*	—		—	
Netherlands	0.012		0.029		0.067		0.22		0.054		0.29	
Equations for 'g+'												
UK	0.00005		0.001		0.00062		0.015		0.00074		0.01	
Germany	0.072		-0.138		0.009		0.217		0.012		0.22	
France	0.16		0.44		0.43	*	1.24	*	—		—	
Netherlands	0.034		0.081		0.16		0.51		0.00053		0.049	

* = F and t significant at 0.05

investment. However, the results from the testing as illustrated in Table 4.3, do not appear to corroborate the hypotheses. Using both indicators of economic growth, the analysis shows that most of the regression equations have not produced statistically significant relationships between growth and housing investment.

The results for France are an exception, where a statistically significant regression equation was formulated using the number of dwellings completed per 1000 population and the growth indicators. The equation for growth of GDP in France produced an R^2 coefficient of 0.22 with a significant t value for the coefficient of the independent variable b_1 . Additionally, over 40 per cent of the variation in dwelling production was associated with the variable g^+ , growth of GDP per head. Both the F and the t tests produced significant results for this equation.

However, using the housing investment indicator H , no statistically significant results were recorded for the French data. The difference between the two indicators could again be due to the improvement work item included in the H indicator.

The results of the testing for Germany, the UK and the Netherlands are, however, more complex. A brief examination of the results in Table 4.3 could lead to the conclusion that economic growth does not have a significant effect on any of the housing investment indicators for the UK, Germany and the Netherlands. In contrast, in France it would appear that the relationship is stronger and more responsive. This might be a result of factors present in the French housing system that make housing investment more likely to respond to changes in growth, that are not present in the other three countries.

Both of the regression equations for Germany have recorded negative signs for the growth variables using the H indicator of housing investment. Although in both of these cases the relationships were weak and not significant at the 0.05 level, discussions of economic theory in section 2.2 (chapter two), suggest that other studies have also discovered negative relationships between economic growth and housing investment. It was also suggested that in some cases more complicated testing using lagged data is necessary to properly account for the nature of the relationship between growth and housing investment. Either or both of these factors might apply to the results for Germany, the UK and the Netherlands. Additionally these results could be suggesting more serious problems with the data or the formulation of the model.

At this level of analysis, and taking into account the above issues, it is difficult to make conclusive statements on the nature of the relationship between growth and housing investment in these countries. Certainly, it is difficult to generalise the overall relationship

between the two variables. It may be that testing which includes economic growth in a more complex model of housing investment, might provide further insights into the effect of this variable.

4.4.3 Housing investment and demographics

To test the strength of the relationship between housing investment and demographics, three variables were used. Regression analysis generated the following equations for each country:

$$H = a_1 + b_1n,$$

$$D = a_2 + b_2n \text{ and}$$

$$N = a_3 + b_3n, \text{ where}$$

n = the proportionate change in the size of the population over a four year lag.

Two further demographic variables were substituted and tested for these equations, $n+$ and n^* , where

$n+$ = the proportionate change in the number of households over the previous two years, and

n^* = the proportionate change in the number of households over the previous four years.

The potential value of using a households indicator for demographic change rather than the population indicator, was discussed in chapter one. Testing has been carried out for both of these indicators. The results, summarised in Table 4.4, clearly show some degree of variation between the countries depending on which variables are used. In general it can be seen that using the indicator H does not produce statistically significant equations for any of the four countries, with each of the demographic variables incorporating a number of different lags. In addition all of the equations have produced low R^2 values.

In contrast, statistically significant results have been produced using the indicator D for the UK, France and the Netherlands. In the Netherlands the relationship between dwellings constructed and the change in number of households with a two-year lag, was particularly strong. The R^2 statistic illustrates that 70 per cent of the variation in dwellings constructed was associated with this household change indicator. Both the F and the t values were statistically significant for this equation.

In France the strongest relationship between dwellings constructed and demographic factors was found using the change in population variable. Here the R^2 was 0.26 with significant F and t tests and a high value for the coefficient, indicating that dwellings completed are quite responsive to changes in population, using the four year lag.

Table 4.4 Housing investment and demographics

Summary of regression analysis for the hypotheses that

$H = a_1 + b_1 n$
 $D = a_2 + b_2 n$
 $N = a_3 + b_3 n$

$H = a_1 + b_1 n +$
 $D = a_2 + b_2 n +$
 $N = a_3 + b_3 n +$

$H = a_1 + b_1 n^*$
 $D = a_2 + b_2 n^*$
 $N = a_3 + b_3 n^*$

Country	H				D				N			
	R ²	F	b ₁	t	R ²	F	b ₂	t	R ²	F	b ₃	t
Equations for 'n'												
UK	0.21		0.37		0.12		-0.68		0.12		-0.471	
Germany	0.0056		-0.023		0.00056		-0.022		0.51	*	1.012	*
France	0.22		1.19		0.26	*	1.92	*	—		—	
Netherlands	0.099		0.23		0.236	*	0.938	*	0.4	*	-2.18	*
Equations for 'n+'												
UK	0.15		0.149		0.06		-0.27		0.05		-0.15	
Germany	0.002		0.03		0.01		0.3		0.08		0.74	
France	0.04		-0.154		0.02		-0.197		—		—	
Netherlands	0.05		0.123		0.7	*	1.4	*	0.005		0.17	
Equations for 'n*'												
UK	0.09		0.08		0.23	*	-0.311	*	0.12		-0.158	
Germany	0.076		-0.12		0.00033		0.023		0.092		0.34	
France	0.00064		0.02		0.002		0.57		—		—	
Netherlands	0.045		-0.06		0.41	*	0.475	*	0.39	*	-0.896	*

* = F and t significant at 0.05

The data for Germany produced statistically significant regression equations for only one variable. This was for the equation using housing investment indicator N, where 51 per cent of the variation was associated with changes in population with a four year lag.

The regression analysis has produced some results with an unexpected negative sign, and some results showing a weak relationship between housing investment indicators and demographic change. However, other equations reveal strong positive relationships between the two variables. Differences are also apparent between the countries. These results suggest that demographic factors do affect the values of housing investment indicators, but that the way in which they are affected and, in particular, the lags that are needed to reflect this relationship are different within the four countries. It may be necessary to combine demographics with other factors in more complex models to pick up its significance.

4.4.4 Housing investment and the size of the housing stock

An examination of the relationship between the dwelling stock and housing investment tested the following hypotheses:

$$H = f(S)$$

$$D = f(S) \text{ and,}$$

$$N = f(S) \text{ where,}$$

$$S = \text{the number of dwellings in the housing stock per 1000 population}$$

Producing for each country the following equations;

$$H = a_1 - b_1 S$$

$$D = a_2 - b_2 S, \text{ and}$$

$$N = a_3 - b_3 S$$

It is assumed that H, D and N are negative functions of S, so that as the stock per thousand population gets bigger additional investment and construction of housing falls. This is because theoretically the potential demand and need for additional dwellings falls as the number of dwellings in the housing stock per thousand population increases, other things being equal.

The results of the testing in Table 4.5 suggest that the size of the housing stock has a very significant statistical relationship with housing investment. (It is being assumed that the housing stock variable is not acting purely as a proxy for a time trend, which might lead to

Table 4.5 Housing investment and the size of the dwelling stock

Summary of regression analysis for the hypotheses that

$H = a_1 + b_1S$

$D = a_2 + b_2S$

$N = a_3 + b_3S$

Country	H				D				N			
	R ²	F	b ₁	t	R ²	F	b ₂	t	R ²	F	b ₃	t
UK	0.006		-0.0013		0.81	*	-0.047	*	0.47	*	-0.02	*
Germany	0.012		-0.001		0.68	*	-0.057	*	0.65	*	-0.05	*
France	0.59	*	-0.017	*	0.81	*	-0.035	*	—		—	
Netherlands	0.26	*	-0.007	*	0.51	*	-0.034	*	0.02		-0.009	

* = F and t significant at 0.05

suspect high R^2 results - see further discussion in section 4.7.) In particular, regression equations for all four countries using the indicator D, have high R^2 values, indicating a strong degree of association. They have statistically significant F and t values and have all produced negative coefficients for the housing stock variable. The R^2 for the UK and France suggests that 81 per cent of the variation in dwellings produced is associated with the size of the housing stock. The negative effect of the stock is small in each country, but it has a slightly bigger effect on dwelling production in Germany, than in the other countries.

Statistically significant relationships are also suggested for the indicator H, in the equations for France and the Netherlands, and for the indicator N, in the equations for the UK and Germany.

It is apparent that when tested as a single explanatory variable the size of the housing stock has an important statistical relationship with both GFCF in housing and dwelling production. The housing stock variable has also been incorporated in the more complex models of housing investment.

4.5 Multi-variate regression analysis

4.5.1 A 'need' model of housing investment

Thus far, only pairs of relationships have been considered in isolation. A need model of housing investment might assume a positive relationship between investment and demographic change coupled with a negative relationship with the size of the housing stock.

Regression equations were generated for a number of different combinations of the demographic factors and the size of the stock variables, with the three main housing investment indicators D, H and N. The main hypotheses tested were thus:

$$H = b_0 + b_1n - b_2S$$

$$D = b_0 + b_1n - b_2S, \text{ and}$$

$$N = b_0 + b_1n - b_2S, \text{ where}$$

b_0 = constant term,

S = size of the housing stock, and

n = proportionate change in the size of the population over a four year lag.

Three further demographic variables were substituted for n :

n^+ = proportionate change in the number of households over the previous two years
 n^* = proportionate change in the number of households over the previous four years
 n^0 = a two year lag on ' n^+ '.

There was a large degree of variation in these results. Many equations produced an unexpected negative sign for the demographic variables. A summary of the results in Table 4.6 reports the more statistically significant regression equations for the need model.

The housing investment indicator D has produced results more consistently supporting the hypotheses being tested. Using the demographic variables n^+ and n^* the adjusted R^2 reached over 0.70 in many equations and these were statistically significant on the basis of an F test at 0.05. The data for France, however, produced unexpected negative signs for the household change coefficient. The t values were significant in relation to the stock coefficients for many of the equations, and all produced a small negative relationship with dwelling production as expected. The t value for the household change coefficient was, however, more generally, not significant at the 0.05 level suggesting that although the regression equations were significant, the accuracy of these values is less certain.

The results of the need model for the indicator D, when using the demographic variable n^0 produced statistically significant results. The coefficients are all of the expected signs and on the basis of an F test at 0.05, equations for the UK, France and Germany all support the hypothesis of the need model. The Dutch equation was less significant and again the t value for the n^0 coefficient was not significant at 0.05. However, the need hypothesis using the n^0 variable, does appear to work fairly well for these countries.

Examining regression equations for the need hypotheses for the different countries does again show how different variables have varying effects. For example, the data for the UK produced statistically significant equations where the three independent variables n , n^+ and n^* together with independent variable S, were regressed with dependent variable H. The coefficients had the expected signs and the F and t tests produced significant results. The need hypothesis in the UK therefore seems to work well. However, in France, Germany and the Netherlands regression equations using H were less significant and produced in some cases unexpected negative signs for the coefficients.

Unexpected negative signs for the coefficients of the demographic variables when used in this type of model, might be an indication of some problems in the data. Regression analysis that

Table 4.6 A 'need' model of housing investment

Summary of regression analysis for the hypotheses that
 $H = b_0 + b_1n - b_2S$
 $D = b_0 + b_1n - b_2S$, and also substituting for 'n'; 'n+', 'n*', and 'n⁰'.

Country	H					D						
	\bar{R}^2	F	b_1	t	b_2	t	\bar{R}^2	F	b_1	t	b_2	t
Equations for 'n'												
UK	0.36	*	0.56	*	-0.012	*	0.63	*	0.073		-0.046	*
Germany	-0.08		-0.03		-0.005		0.52	*	-0.1		-0.05	
France	0.78	*	-0.42	*	-0.04	*	0.83	*	-0.43		-0.05	*
Netherlands	0.05		0.03		-0.006		0.21		0.38		-0.02	
Equations for 'n+'												
UK	0.28	*	0.23	*	-0.009	*	0.72	*	0.12		-0.046	*
Germany	-0.0003		0.024		-0.006		0.73	*	0.31		-0.072	*
France	0.69	*	-0.2	*	-0.02	*	0.88	*	-0.05		-0.05	*
Netherlands	0.35	*	-0.19	*	-0.014	*	0.7	*	1.13	*	-0.01	
Equations for 'n*'												
UK	0.53	*	0.31	*	-0.03	*	0.7	*	0.26		-0.06	*
Germany	-0.022		-0.11		-0.003		0.54	*	0.2		-0.055	*
France	0.77	*	-0.08	*	-0.03	*	0.82	*	-0.006		-0.049	*
Netherlands	0.49	*	-0.23	*	-0.016	*	0.36	*	0.37		-0.009	
Equations for 'n°'												
UK							0.66	*	0.29		-0.058	*
Germany							0.83	*	0.095		-0.048	*
France							0.52	*	0.23		-0.052	*
Netherlands							0.2		0.12		-0.022	

* = F and t significant at 0.05

includes a number of explanatory variables can lead to problems of auto-correlation or multi-collinearity (see section 4.3) resulting in unexpected values or signs in the regression equations.

It does appear, however, that the need hypothesis holds some potential for explaining variations in housing investment indicators.

4.5.2 A 'need and growth' model of housing investment

A 'need and growth' model of housing investment can be formulated by adding an economic growth variable to the 'need' model. The combined effects of demographic change, the size of the stock and economic growth can then be tested with housing investment indicators. Using this model, regression equations were generated testing a number of different combinations of the housing investment indicators. The following hypotheses were considered:

$$H = b_0 + b_1n - b_2S + b_3g,$$

$$D = b_0 + b_1n - b_2S + b_3g, \text{ and}$$

$$N = b_0 + b_1n - b_2S + b_3g, \text{ where}$$

n = proportionate change in the size of the population over a four year lag

S = size of the housing stock, and

g = proportionate annual change in GDP.

In addition, the above hypotheses were also tested substituting the variables n^+ and n^0 for n ; and substituting g^+ for g , where

n^+ = proportionate change in the number of households over a four year lag

n^0 = a two year lag on ' n^+ '

g^+ = proportionate annual change in GDP per head.

The results, summarised in Table 4.7, clearly show a large degree of variation between the countries, and depend on the choice of the different independent and dependent variables. A number of equations produced unexpected negative signs for the demographic and growth variables; both in cases of a high and low adjusted R^2 value. However, some equations did produce a high adjusted R^2 , have the expected signs for the coefficients and prove to be statistically significant. Tests for the equation,

$$D = b_0 + b_1n^+ - b_2S + b_3g^+,$$

Table 4.7 A 'need and growth' model of housing investment

Summary of regression analysis for the hypotheses that

$H = b_0 + b_1n - b_2S + b_3g$

$D = b_0 + b_1n - b_2S + b_3g$

$N = b_0 + b_1n - b_2S + b_3g$, and also substituting for 'n'; 'n+', and 'n0', and substituting for 'g'; 'g+'.

Country	H						D						N					
	\bar{R}^2	F	b_1	t	b_2	t	b_3	t	\bar{R}^2	F	b_1	t	b_2	t	b_3	t		
Eqns with 'n' & 'g'																		
UK	0.37	*	0.6	*	-0.014	*	0.035	*	0.66	*	0.164	*	-0.051	*	0.09	*		
Germany	-0.106		-0.028		-0.004		-0.061		0.56	*	-0.095	*	-0.052	*	-0.19	*		
France	0.77	*	-0.46	*	-0.04	*	-0.033	*	0.82	*	-0.36	*	-0.05	*	0.06	*		
Netherlands	-0.01		0.043		-0.006		-0.019		0.16		0.41		-0.02	*	-0.06	*		
Eqns with 'n+' & 'g'																		
UK	0.53	*	0.33	*	-0.26	*	-0.28	*	0.7	*	0.2	*	-0.062	*	0.058	*		
Germany	-0.01		-0.13		-0.002		-0.07		0.56	*	0.16	*	-0.05	*	-0.18	*		
France	0.76	*	-0.092	*	-0.033	*	0.17	*	0.82	*	-0.044	*	-0.049	*	0.09	*		
Netherlands	0.46	*	-0.24	*	-0.016	*	0.03	*	0.35	*	0.43	*	-0.006	*	-0.13	*		
Eqns with 'n°' & 'g'																		
UK	-0.032		0.21		-0.015		0.03		0.75	*	0.5	*	-0.072	*	0.133	*		
Germany	0.02		-0.21		-0.005		0.057		0.57	*	0.26	*	-0.05	*	-0.2	*		
France	0.79	*	0.31	*	-0.031	*	-0.09	*	0.82	*	0.19	*	-0.05	*	0.077	*		
Netherlands	0.43	*	-0.43	*	-0.015	*	0.06	*	0.16		0.22		-0.02		-0.085			
Eqns with 'n+' & 'g+'																		
UK									0.7	*	0.18	*	-0.073	*	0.18	*		
Germany									0.91	*	0.39	*	-0.051	*	-0.05	*		
France									0.84	*	-0.36	*	-0.046	*	0.76	*		
Netherlands									0.26		0.57	*	-0.003	*	-0.48	*		

* = F and t significant at 0.05

produced high adjusted R^2 values of 0.70 for the UK and 0.91 for Germany. Both of these equations were statistically significant on the basis of an F test at 0.05. For the UK although all the coefficients had the expected sign, only the coefficient for the stock had a significant t value. For Germany, all three coefficients recorded statistically significant t values, but a small negative effect was produced for the growth variable. A similarly significant equation was recorded for the German data using the net additions dependent variable, with the same independent variables; producing an adjusted R^2 of 0.90 and significant F and t values for all the coefficients, but again producing a negative growth effect.

The equations for the Netherlands did not appear to work so well for the need and growth model. Low adjusted R^2 were produced, along with unexpected negative signs and a low level of statistical significance. The data for France, although producing high statistically significant adjusted R^2 values, also recorded unexpected negative signs for the household change variable.

Similar results between the four countries were produced for the equation,

$$D = b_0 + b_1n + b_2S + b_3g,$$

where high and significant adjusted R^2 were produced and the stock indicator was of the expected negative sign. However, the t tests for the other independent variables in the equation were not statistically significant, or had an unexpected negative sign. Substituting H for D in the above equation gave statistically significant regression equations for the UK, France and the Netherlands, but again produced some unexpected negative signs for the coefficients.

Using the demographic variable n^0 in the need and growth model to explain dwellings completed, produced high adjusted R^2 values for the UK and France, of 0.75 and 0.82 respectively. The F value for both of these was statistically significant and all the expected signs for the coefficients were recorded. This version of the need and growth model does appear to work well for these countries.

Including an economic growth variable in the 'need and growth' model tended to produce a higher degree of variation in the results than the need model. While some equations appear to work quite well in specific countries, and would support the hypotheses, there are still a number of regression equations which produced unexpected results. As with the 'need' model this could be due to a high degree of correlation between the independent variables. The results also show that some variables have a greater effect than others in different countries,

and that the dependent variable D (dwellings completed) is somewhat easier to explain than the other two housing investment indicators (or the equations work better).

4.6 Housing investment and government expenditure

The possibility of testing hypothesis five using a quantitative approach was considered. Hypothesis five states that levels of housing investment are determined by government and housing policies. Thus it might be assumed that a government or the form of that government's housing policies influence levels of housing investment according to their degree of involvement in housing or the degree of priority given to housing. Under these circumstances a country where the government has greater involvement in housing or gives it greater priority may result in higher levels of housing investment. However, to test this hypothesis statistically requires finding a variable that is able to quantify levels of government activity in housing. This is clearly very difficult to obtain. Burns and Grebler's (1977) study of the determinants of housing investment acknowledge that the magnitude of governmental assistance to housing is an important variable in attempting to explain housing investment. However, they also state that, "The extent of public assistance to housing varies widely among countries and does not lend itself to quantification", (Burns and Grebler, 1977, p36).

A government housing expenditure variable could be used as an indicator of the level of government activity in housing. However, difficulties exist in measuring this variable across four countries. Definitions of government expenditure on housing vary widely from country to country and the nature, purpose and effects of the expenditure vary even more. There is a wide divergence between government expenditure on housing and housing subsidies. Much expenditure does not involve a subsidy and many subsidies do not involve government expenditure. Some of the most important interventions by government involve 'hidden subsidies' via land market interventions, which result in land being provided cheaply for housing construction, or capital market interventions, perhaps via loan guarantees, which reduce the costs of housing development finance but do not involve direct government expenditure. A further problem is that some public expenditure on housing is quite clearly related to housing consumption rather than housing investment.

These problems of consistency of definitions do make direct comparisons difficult. Data comparing government expenditure is however, compiled by the IMF at an international level which does have the benefit of a common definition across countries. Data is published in the IMF's Government Finance Statistics Yearbook which details government expenditure on 'Housing and community amenity affairs and services'. This includes many items; housing and community development, water supply affairs and services, sanitary affairs and services, street

lighting affairs and other housing and community services. Of this list the individual item 'housing and community development' might have provided the best available measure for housing expenditure, which includes, among other things, expenditure on the provision of housing, subsidies, grants and loans for construction or improvement work (not for rents), land acquisition, slum clearance, administration of these affairs and services. However, data for the four countries for this item was very limited and would not have enabled a worthwhile comparison. Thus, the former much broader category had to be used as an indicator of government housing expenditure which includes a number of what might be termed non-housing specific items. This data does provide a very imperfect measure of housing policy or government activity in housing markets. However, despite this not being a particularly good proxy, some statistical testing was done using Government Expenditure on Housing and Community Affairs and Services as the independent variable, expressed as a percentage of GDP.

Initially bi-variate regression was done on this variable and the three dependent variables H (GFCF in housing as a percentage of GDP), D (dwellings constructed per thousand inhabitants) and N (net additions to the stock per thousand inhabitants). Testing produced consistently poor results for the dependent variable H, with very low R^2 for all four countries. The results for the dependent variable D were significant only for Germany where an R^2 of 0.48 was produced. Results using the dependent variable N and the government housing expenditure variable produced much more significant results, with an R^2 of 0.44 for the UK, 0.52 for Germany and 0.35 for the Netherlands. These latter results do appear to signify a positive relationship between government housing expenditure and net housing investment.

Regressions were also done that included the government expenditure variable in the multi-variate models. Initially, the government expenditure variable was included in the need model to examine whether it had a significant combined effect together with demographic and stock variables. These results were mostly inconclusive with many of the variables recording the 'wrong' signs. Some of the equations did, however, produce significant results. For the UK high R^2 and the expected signs were produced using dependent variable D ($R^2 = 0.84$), and dependent variable N (0.72). Significant results were also produced for France using dependent variable H ($R^2 = 0.91$) and dependent variable D ($R^2 = 0.70$).

Government expenditure on housing as a percentage of GDP was also added to the need and growth model to examine the potential effect of a 'policy' variable on this model. However, again, the results of the equations tested were mostly inconclusive with 'wrong' signs. Only the UK produced significant results, with the expected signs, for dependent variable D ($R^2 = 0.84$) and dependent variable N ($R^2 = 0.75$).

The significance of these results has clearly varied between countries. There does seem to be greater significance of the government expenditure variable, in both bi- and multi-variate analysis, on the dependent variable N (net additions to the stock). In the multi-variate analysis the equations also held some significance for the UK and France using the dependent variable D (dwellings constructed per thousand population). Results generally were, however, particularly poor for the Netherlands and Germany.

The inferences that can be drawn from these results are, however, inconclusive because of the problem of definition. The variable government activity in housing markets, has more difficult problems of interpretation and measurement than the other variables used in this work. To measure 'government activity' adequately more sophisticated data would have to be assembled which more fully measured 'intervention' and would include taxation and subsidies. Reporting the investigation of this variable has highlighted these difficulties of comparison and definition. Results, as might be expected, are somewhat arbitrary and given the problems of definition discussed basing any firm conclusions on the testing of this variable would not be worthwhile.

4.7 Conclusions

The four hypotheses set out at the beginning of this chapter were tested with the aim of finding potential explanations for levels of housing investment in different countries. The statistical testing has clearly produced some very varied results. Many of the models tested have supported the original hypotheses and produced the expected results. Other regression equations have been more surprising, or have indicated very weak relationships between variables. Some results can, however, provide partial explanations for differences in housing investment in some countries. The results also hold a number of implications for the processes by which housing investment is determined and their relation to the relevant theories specified at the beginning of this chapter.

Although it is difficult to make generalisations on the basis of this type of testing, a brief summary of the main results can be made. Results showed that the level of total investment in an economy can have a significant relationship to housing investment. In the testing this was particularly true when explaining the dependent variable 'D' representing the number of dwellings completed per 1000 population. This was not a particularly surprising result as housing investment does make up a part of total investment. However, one aim in the testing of this independent variable was to determine whether the level of housing investment was solely related to the quantity of total investment in an economy. The results show that this

was clearly not the case and other explanatory variables also play a role. Results of this testing also imply that it is theories related to housing and housing investment that provide the basis for explaining housing investment, and not more general theories of total investment.

The regression results for the independent variable economic growth were the least conclusive of all the bi-variate models tested. Most of the regression equations tended not to support the hypothesis that housing investment was determined by economic growth, and where the results were significant only a weak relationship was recorded. In addition results occasionally produced a negative effect for economic growth, this being the case, for example, for the German data. This suggests that an increase in economic growth might have positive effects on housing investment in some countries and negative effects in others. While the statistical testing appeared not to support the hypothesis, it is acknowledged that alternative formulations of this model incorporating time lags, for example, may provide a clearer picture of the effects of economic growth on housing investment. Because of the problems that emerged in the statistical testing it is difficult to be conclusive about the implications of the economic growth hypothesis. A lack of consistent results, which mean that the hypothesis cannot be rejected or not-rejected also means that conclusions cannot be made in respect to theories of economic growth and housing investment. On the basis of these results it is clear that more sophisticated statistical analysis is needed to examine the nature of this relationship and its theoretical implications.

The testing of models with independent variables representing demographic growth showed in some cases a strong degree of association with housing investment. Results varied according to the different lags and the different independent variables used, and also varied between countries. However, there was some support for the hypotheses being tested. The rate of household formation and population growth can be seen to have affected dwelling production, but, as discussed in chapter one, it may also be the case that the availability of dwellings influenced the rate of household formation. For example, individuals or sometimes families that would prefer to form a separate household and find their own dwelling might be forced to share accommodation with other households because of a lack of available dwellings. Although this 'inverse' relationship was not tested it is acknowledged that it may hold some significance. The results of testing demographic variables show that a strong relationship can be identified between population and/or household growth and housing investment, using specific but different equations within each country. Results showed that, as might be expected, different countries produced results supporting the hypothesis using different variables and different lags. This illustrates the fact that the amount of time and processes by which housing investment is affected by household or population growth does vary between countries. Testing this variable has shown that, other things being equal, the theory that an

increase in demographic growth can lead to increases in housing investment does hold. However, it is clear that different countries respond in different ways. In addition results show that demographic growth cannot explain housing investment levels alone and that other variables must be considered.

The bi-variate model that tested the significance of the size of the dwelling stock also suggested a strong statistical relationship with housing investment. The size of the dwelling stock appeared to work well as an explanatory variable for housing investment. This would seem to suggest that, other things being equal, as the size of the dwelling stock per thousand population increases housing investment levels fall. This would confirm the theory that an increasing dwelling stock size reduces the need and/or demand for new dwellings which is reflected in a decrease in housing investment levels. Again, however, it is clear that the housing stock variable is not the sole determinant of housing investment and that other factors must also play a part in an explanation.

It should be noted here that where a strong statistical relationship is found in the bi-variate regression models it can not necessarily be concluded that these factors have a strong explanatory effect on the dependent variable. For example, in the case of the dwelling stock model, it may be that other factors caused the number of dwellings built to fall as the size of the stock increased, rather than the change in the two variables being entirely reliant on each other. These factors may include, for example, government policies or economic factors. However, where a strong statistical relationship has been found it can be said that the independent variable might provide a partial explanation for some of the change in the dependent variable. On this basis, the testing shows that total investment, demographic growth and size of stock indicators appear to have some relevance to housing investment differences in these countries.

The multi-variate models that were tested showed a large degree of variation in results. The strength of the relationships, again, varied depending on which combinations of independent variables were tested with the different dependent variables for the four countries. While some models seemed to work quite well and support the hypotheses, others produced unexpected signs or results. For the more complex models with two or three independent variables the exact specification of the variables, and the type of lags that are incorporated are much more crucial in producing significant regression equations. The results of the bi-variate testing clearly indicated that no one variable could alone, explain housing investment and that it was clearly a combination of the different variables that together explained housing investment levels. As such it might be expected that the results from the multi-variate testing would produce a more significant explanation for housing investment. What the multi-variate models

showed was that simply combining a number of these hypotheses does not necessarily guarantee a full explanation for housing investment. With this more complex modelling differences between countries in the equation, variables and lags needed to produce 'successful' results becomes even clearer than in the bi-variate analysis. In addition the testing of the multi-variate models illustrates that a full explanation is not provided from the analysis of just these variables and further factors must be considered in explaining housing investment.

The results of testing the government housing expenditure variable, as a proxy for government activity in housing, confirmed significant limitations in attempting to quantify the effect of this variable on housing investment. The housing policy variable is examined using qualitative methods in the next chapter.

A partial explanation for the wide variation in results that could apply to all the regression analysis that has been undertaken is the way in which the housing systems operate in different countries. Differences were consistently found in results according to which dependent variables were used; i.e., housing investment as a percentage of GDP, the number of dwellings completed per 1000 population, or net additions to the stock per 1000 population. Differences were also dependent on the lags used, producing different results in different countries. Differences in the size of lags and in the values of the coefficients recorded in the regression equations for specific variables, may be a function of the way that the 'housing systems' operate in different countries. Different institutional, structural or political arrangements in housing systems may mean that some of the variables have different effects in different countries (institutional, structural and political arrangements within housing systems are examined separately and in more detail in chapters 5, 6 and 7.) A housing system in one country may, for example, be more responsive to changes in say, household formation or economic growth, than a system in another country.

This might be a partial explanation for differences in the values of the coefficients between equations. For example, in the need model with dwelling production as the dependent variable and the proportionate change in households over the previous two years as the measure of demographic change, the German coefficient for demographic change (0.31) is larger than the equivalent UK coefficient (0.12). The stock coefficient in the UK suggests a relatively smaller negative effect (-0.046), compared with Germany (-0.072). It could be that institutional factors are resulting in a given change in households exercising a relatively stronger effect on housing investment in Germany than in the UK. A given increase in the stock is, however, exercising a stronger negative effect in Germany. Any conclusion of this sort would, however, have to be tentative given the significance of the t values for the coefficients. The results show how the values of the coefficients vary from model to model. Coefficients are not consistently

higher or lower for any variable in one country than in another. Because of the wide variation in the statistical results it is difficult to analyse the coefficients in this way in more detail. Results between countries have not been consistent enough in respect to each independent variable to fully explore possible effects of institutional factors. Therefore, taking the statistical results as a whole there is not sufficient evidence to state with a high level of confidence, anything definitive about the overall consequences of institutional arrangements for the size of coefficients. Institutional arrangements are, however, examined in more detail in later chapters.

The statistical testing of possible housing investment determinants has produced interesting results. In particular it is significant to confirm that the explanatory factors do seem to affect housing investment to different degrees in different countries. In addition it is clear that no simple and complete explanation for housing investment has been found. Some equations that were tested appeared to work well for some countries and not for others; and, hypotheses cannot be generally rejected or not-rejected across countries. Part of the problem with making significantly more detailed conclusions is related in part to the limitations of this kind of statistical analysis. Some problems experienced with data and modelling may have been resolved in part using different lags on variables, using different models or taking logs of certain data. The scope of this study has meant that many of these issues could not be taken forward. However, while some problems with the modelling may have limited the potential for making definitive conclusions, there is significant value in the those results that have been produced.

As noted above even when regression models produced statistically significant results, it is clear that none of the independent variables tested, neither individually nor jointly, can provide complete explanations for housing investment differences. Even where a regression equation has worked well for particular variables in particular countries, a residual element that is effectively 'unexplained' has still existed. The following chapters which will examine policy effects on housing investment, and social housing systems and their effects on housing investment, can be viewed as an attempt at investigating the 'unexplained' residual that has been apparent in this statistical analysis.

Chapter 5: Government and its effect on housing investment

5.1 Introduction

In chapter four a number of broad national aggregates were examined and their statistical relationships with housing investment investigated. Some of the results showed that these factors can have an effect on housing investment. However, it was concluded from the statistical testing that these factors can only account for part of the explanation for housing investment differences in the four countries.

This chapter will examine the role of government and housing policy decisions in influencing housing investment, or accounting for its differences between the countries. An introduction to the role of the state and government policies was provided in chapter two. The aim of this chapter is to investigate the hypothesis that governments and housing policies can have a direct effect on housing investment.

There are three main focuses of this investigation. Firstly, an examination of the welfare state and housing investment. This section will examine briefly how the development of the welfare state in the different countries, and the nature of the welfare provision of housing, might lead to explanations for differences in housing investment, examining, in particular, ways of conceptualising the welfare state which could provide an insight into housing investment outcomes. Secondly, the chapter will investigate the changing nature of government involvement in housing and the gradual withdrawal of state intervention, including differences in the control and regulation of housing and the increasing role of markets in provision. Finally, the chapter will consider the period 1970-92 in relation to each country, and examine concurrently, housing policies and housing investment levels, looking at what causes can be found for specific increases and decreases in housing investment.

5.2 The welfare state and housing investment

Some brief discussion of some of the theoretical approaches to the growth of the welfare state, was provided in chapter two. Alternative methods of classifying or determining the nature of particular welfare states were also put forward. In this section a very brief historical analysis will be provided to examine the nature of the welfare state in France, Germany, the Netherlands and the UK. This can be done by examining the role that a welfare state has developed, e.g. is it residual or universal (Johnson, 1987), or, are housing policies

comprehensive or supplementary (Donnison and Ungerson, 1982). Additionally, the nature of housing provision can be identified with reference to welfare regime types (Esping-Anderson, 1990). These will be examined in the following sections.

5.2.1 The development and role of the welfare state in France, Germany, the UK and the Netherlands

In respect to the welfare state it has been stated that:

"In any one country there were periods of rapid development followed by relatively quiet periods, and there were occasional periods of retrenchment. Different countries developed services at different rates, at different times and with different priorities" (Johnson, 1987, p5) additionally,

"In different nations the government role has developed at different times" (Heidenheimer et al, 1990, p17).

Supporters of different theoretical perspectives attribute different reasons to the varying rates of welfare growth and development between countries. These reasons relate partly to the theory on welfare state development discussed in chapter two and include, for example, a relationship with the rate of economic development, or the rate of political and social mobilisation in a country. Whichever perspective is adopted it is clear that differences in current systems of welfare provision, including housing provision, will partly stem from differences in historical development.

To carry out a full historical investigation of the development of welfare states and their subsequent effects on housing, and housing investment, in France, Germany, the Netherlands and the UK is beyond the scope of this research. However, it will be useful to make some brief comments specific to housing policy development to illustrate the potential effects on housing investment levels.

While some welfare services had been initiated in the pre-war period, both social reform and wider welfare provision grew substantially in the period after 1945. Johnson cites four major influences on growth at this time:

- "1) The direct and indirect impact of the war and the desire for stability in Western Europe as a defence against both communism and fascism
- 2) Memories of inter-war unemployment and the unwillingness of electorates, at least in Western Europe to return governments not committed to full-employment policies and social reform

- 3) Unprecedented and sustained economic growth
- 4) The acceptance of Keynesian economic theories" (op cit., p18-19).

He denotes this period, continuing up until the 1960s, in Western Europe as the 'heyday of the welfare state', when most countries developed more universal and comprehensive welfare policies. It was during this period that major housing programmes were launched and developed in European countries, and governments intervened in housing through instruments such as subsidies, loans and allowances. However, it was also during this time that more specific differences between countries in their government's form of intervention, began to emerge. In particular there were differences in the balance afforded within each welfare state between the public provision and/or financing of services, and the market economy. Differences in this balance between France, Germany, the Netherlands and the UK are particularly apparent.

For example, Germany has traditionally maintained a philosophy of strong private market economics within its welfare services, but has combined this with a high level of social expenditure. This has been attributed (Rimlinger, 1971) to the ideologies of the two main political parties: the Christian Democrats who support limited government intervention, private initiative and the individual's responsibility for his own welfare; and the Social Democrats, who view government intervention as essential to liberty and emphasise the duty of the state to secure the welfare of all its citizens, (Johnson, 1987, p20). These two strong philosophies have been incorporated into policy decisions and can clearly be identified in the German housing system. Germany, while maintaining a strong degree of support and control in housing provision through generous producer and consumer subsidies, has simultaneously relied on private individuals and commercial organisations to carry out the building of houses.

France and the Netherlands also tended to establish frameworks for housing provision along these lines, although they also placed a large degree of emphasis on other co-operative and non-profit making associations for house building. In the Netherlands there has been a strong tradition of state support for private initiative in the structuring of welfare services, including housing (Harloe, 1995). Historically, major secular and confessional groups in the Netherlands have been encouraged to develop their own structures of social service organisations. These organisations have been supported financially by the state, but maintain a significant degree of independence in their operations. This was the basis on which housing corporations were established in the 1901 Housing Act. Structures of welfare provision that were established around this time were formulated in such a way as to encourage the private initiative of non-profit housing corporations and the regulation of these bodies was devolved to municipalities wherever possible. Over time this has meant that the non-profit housing sector has developed

into a strong and independent sector. Harloe also notes, "This formula..allowed the various politico-social groupings to establish corporations linked closely to their own interests, and has been one reason why a polarized 'politics of tenure' has not developed in the Netherlands" (ibid., p29).

In France a history of state repression led to strong political feeling against state intervention at a time when the welfare state and housing provision was being established. The system of state support for housing took considerably longer to be established in France than in other European countries. Harloe noted that this may have been caused by "a rather slow rate of industrialisation and urbanisation and the limited size of the urban working class" (ibid., p47). An emphasis on liberalism and individualism in France therefore led to the creation of non-state, non-profit housing organisations as the main providers of low-cost housing. While these bodies were regulated by the state they were governed by committees made up of local and regional government representatives and of organisations with housing interests.

This contrasts strongly with the type of welfare provision and housing policies implemented in the UK during the inter-war and post-war period. The UK differed from most other European countries in that it initiated a large public sector housing programme which involved local authorities in building, maintaining and managing dwellings. This direct provision of welfare services was a feature of the welfare state in Britain which, for example, also included the national health service. In the UK, with financial and industrial frameworks already in existence, post war housing policies did not focus on private enterprise but on local authority provision. These responsibilities were taken on initially due to the huge housing shortages in post war Britain, and this form of direct action was originally seen as a temporary necessity. Indeed, although local governments continued to play a role in council housing provision in the UK right up to the 1980s, it came to be seen as a much more residual form of provision in successive governments.

One key factor that has contributed to the differences between France, Germany, the Netherlands and the UK in welfare state and housing policy development is their respective rates of industrialisation. Differences between the UK and the three other countries are particularly apparent. This is essentially because Britain was in a unique position as the first nation to industrialise. Its role as a leading economy meant that it developed, very early, an advanced industrial base including commercial and financial institutions, and at the same time evolved powerful state structures. Gough notes that, "In other countries the state played a more important role in establishing a framework for private capital..than it did in Britain" (Gough, 1979, p30). The way in which other European countries organised their welfare structures and finance systems will also relate to their historical position in industrialisation,

"within the European context...the earlier history of different countries helps explain the forms of state structure and hence of welfare interventions" (ibid., p64). Those countries industrialising later did not have the existing financial industrial frameworks established that were present in the UK, and they were to a large extent introduced after the war.

Hobsbawm (1968) links the effects of industrialisation on welfare development in the UK to its resulting economic and industrial decline, throughout this century. Part of this decline resulted in significant cuts to domestic investment, as Britain continued to invest abroad in the Empire. In comparison to other European countries, particularly Germany and France, the UK was to some extent left behind, as other economies became more dynamic and grew faster. With the UK lacking resources and the impetus for investment, a connection can be made to a more long term structural explanation for lower housing investment compared to other European countries. This historical development also clearly affected the different forms of housing policies established.

5.2.2 Differences in the form of housing policies

While all European governments developed extensive housing programmes particularly during the post war period, it is clear that specific differences existed in the form the programmes took. Two different approaches have been characterised as 'comprehensive' and 'supplementary' housing policies. These terms distinguish between, "policies which aimed at planning and controlling the total volume of house building and policies which aimed only at bolstering the private housing market and providing housing for those groups that could not be served by private builders" (Heidenheimer et al, 1990, p101).

Thus governments establishing comprehensive housing policies took responsibility for the housing needs of the whole population, while those initiating supplementary policies relied to a large extent on provision by private developers targeting policies to specific minority groups. Lundqvist (1992), also notes comprehensive policies are characterised by "concentrated implementation structures with considerable autonomy" and "relatively high mobilisation among affected interests", while supplementary policies are characterised by "fragmented implementation structures" and "relatively low mobilisation among affected interests" (ibid., p12-13). Using this interpretation of housing policies it might be argued that the UK has a 'supplementary' housing policy because its housing policies have often been short term solutions to particular problems. In addition UK housing policies have often been very 'tenure orientated', focusing at any one time on one particular housing sector.

Heidenheimer et al, also link forms of housing policy to the historical development of the nation (as discussed above) arguing that "the growth of the housing stock has taken place very gradually, within the framework of long established trends towards urbanisation and industrialisation. In..(Britain)..,the building industry and the private credit market have for the most part been adequate to sustain a large volume in construction" (op cit., p101). Periods can be identified when housing policies in the UK were more comprehensive, for example, in the immediate post-war period when the Labour government took a large degree of responsibility for housing provision. However, successive governments have tended to return to a more 'supplementary' role for housing. Merrett, for example, writes "Since 1953 the role of state housing has been perceived by the leadership of both major political parties, when in power, as the residual activity of carrying through what speculative building for owner-occupation and private rehabilitation were unable to achieve" (Merrett, 1979, p281).

In contrast to the UK, France, Germany and the Netherlands along with many other European countries, have been classified as having more comprehensive housing policies (Donnison and Ungerson, 1982, p84). These countries, Donnison and Ungerson note, all have characteristics of comprehensive housing policies. These include long-term 'comprehensively' defined housing programmes which are based on predictions of estimated need and demand, and which control levels of housing production in accordance with those needs. Countries with comprehensive policies, therefore, have a considerable amount of control over the housing system and its output levels. This is facilitated by control over small amounts of funds, and the capacity to direct these into housing investment throughout all housing sectors. Thus, governments, "can secure extensive and sensitive control of the programme, and provide a greater variety of housing for a wider variety of households" (ibid., p82). Heidenheimer also notes that this form of policy has meant that, "by means of relatively shallow subsidies to a broad spectrum of housing investors, the governments...have been able to exercise significant control over the volume, timing and even location of residential building for all income levels and by almost all types of builders" (Heidenheimer et al., 1990, p102).

Examining housing policies in France, Germany and the Netherlands does provide some evidence of these characteristics. The three countries have traditionally had many different forms of subsidies, taxes and loans across all housing sectors and, it could be argued, have therefore had greater control over total housing output than the UK. A significant difference between the UK and France, Germany and the Netherlands that reflects these differences in housing policies is that the government in the UK has taken much greater responsibility for direct housing provision through local authorities.

Table 5.1 Dwellings completed by type of investor, 1970-1992

Percentage			
	National, County and Local Governments	Non-profit	Private Builders
France			
1970	0.7	32.2	67.1
1980	0.8	20.6	78.6
1984	1.1	17.3	81.5
1988	0.01	12.6	86
1992	0.02	18.4	79.8
Germany			
1970	2.3	18.4	79.3
1980	1.5	8.6	89.8
1985	0.5	7.9	91.5
1988	0.7	1	98.3
1992	1	—	98
Netherlands			
1970	16.3	31.6	52.1
1980	2.7	27.7	69.6
1985	4.8	35.7	59.1
1988	0.03	33	63
1992	0.03	29	68
UK			
1970	48.6	3.3	48.1
1980	36.1	11.2	52.7
1985	15.3	6.7	78
1988	8.9	5.3	85.4
1992	2.8	14.8	82.2

Sources: Heidenheimer et al (1990, p103), United Nations (1993)

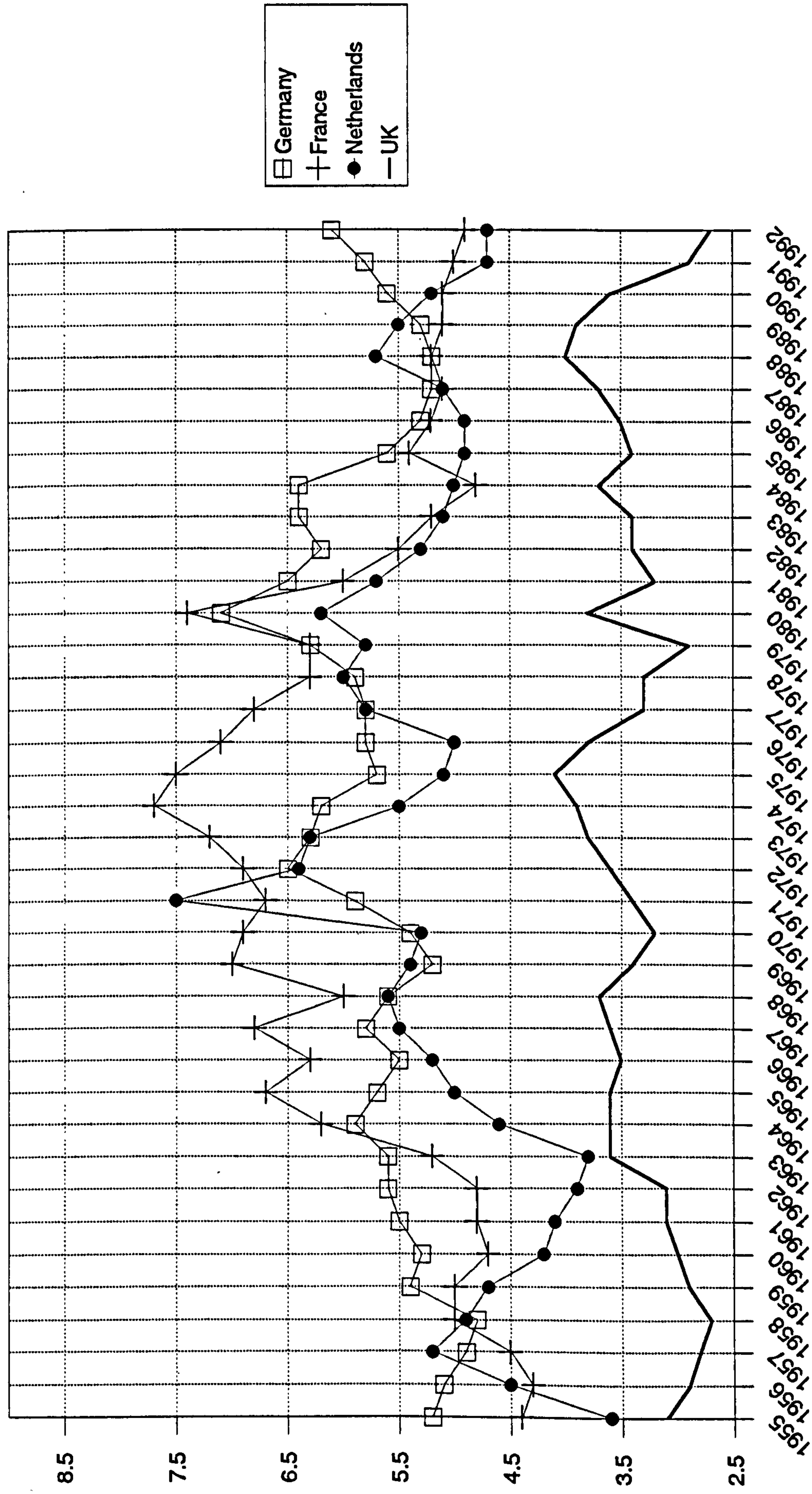
The differences in types of investor in the different countries are shown in Table 5.1. Between the four countries it is clear that historically, direct government provision of housing has been greatest in the UK. The data in Table 5.1 shows that in 1970 48.6 per cent of dwellings were constructed by government providers. In the same year in the Netherlands the government was directly responsible for 16.3 per cent of housing construction, only 2.3 per cent in Germany and less than 1 per cent in France. France and Germany have historically had the highest percentage of housing constructed by private builders, while the Netherlands has tended to rely more than the other countries on non-profit enterprises for housing provision. During the period 1970-1992, however, there has been a reduction in dwellings completed by government bodies, especially noticeable in the UK, and an increase in completions by private builders. A further possible implication of the differences revealed in Table 5.1 is that housing production in the UK, being more reliant on the public sector, has been more constrained by public expenditure considerations (this point will be discussed further in chapter seven).

Using the distinction between supplementary and comprehensive housing policies could provide a useful tool for comparisons between the four countries. The form of housing programme that has been established in these countries and the way that they reflect the government's attitude to housing might be associated with differences in housing investment between countries.

Data presented in chapter three on housing investment levels in the four countries showed that housing investment was consistently lower in the UK than in the three other countries between 1970 and 1992. However, data going even further back reveals that the UK has had a lower level of investment throughout most of the post war period. Figure 5.1 shows that this has been the case at least since 1955. This long term data shows quite dramatic differences between the UK and the three other countries. The latter appear to have had almost double the UK's level of housing investment during much of this period. In the introduction it was argued that past levels of housing investment may be a reflection of present levels of need for new housing investment. Thus a country might have a low level of need for new investment if it had, in the past, maintained high levels of housing investment. In accordance with this principle Figure 5.1 indicates that there has not been a high level of past investment in the UK which can explain its low investment record in the period 1970-1992.

One explanation for the UK's long-term low level of housing investment could be related to the 'supplementary' nature of its housing policy. Although it has been argued (see Donnison and Ungerson, 1982, p82), that a comprehensive form of housing policy does not necessarily lead to greater levels of housing investment there are a number of arguments for hypothesising that comprehensive policies might encourage more housing investment than that of

Figure 5.1: GFCF in residential buildings as a % of GDP, 1955-1992



Note: 1955-1966 as a % of GNP

Source: United Nations (1993, and various years)

supplementary policies. In particular this could be true because a system of comprehensive policies indicates a greater degree of commitment to an overall housing policy, and by encouraging investment in housing from a number of different organisations, and across all housing sectors there is arguably more scope for increasing investment. The data shows that France, Germany and the Netherlands, which appear to have more comprehensive housing programmes, have all tended to invest more in housing than the UK.

The possible effects of different forms of housing policy on housing investment will be discussed further in a comparative section at the end of the chapter. It is possible, however, that higher investment in some countries is less to do with the having a comprehensive policy and, rather, is associated with the reasons why there is a comprehensive policy in the first place. These could be, for example, because there is greater commitment to housing, because housing has a high priority, or, because there is a party political system which recognises this priority and removes the housing issue from 'party politics and ideology'. Many of these factors exist in France, Germany and the Netherlands but are not present in the UK, and might well play a greater role in determining differences in housing investment levels.

5.2.3 Housing and welfare regime types

The different welfare regime types put forward by Esping-Anderson were outlined in chapter two. Characterising the different countries using a welfare state typology can provide a useful distinction for comparisons. It might also provide a framework within which differences in housing investment might be explained. In his classification of welfare regime types Esping-Anderson did not specifically include housing. However, it is clear that housing provision and housing policies will be different in each regime type.

In a comparative study of European housing systems Barlow and Duncan (1994) used Esping-Anderson's welfare regime types to place the countries they examined within the framework of welfare capitalism. They note a number of implications for housing provision within the different welfare regimes, and make the following characterisations (*ibid.*, p30-32). In the liberal welfare regime type significant state intervention in housing will be limited to 'stigmatised' provision for a residual population who cannot participate successfully in the housing market. There will, however, be more substantial support for the better off, usually owner occupiers.

In corporatist states overt state support will be more widespread and influenced less by ideology, but, Barlow and Duncan note, it will be used in a temporary 'social problem solving' role. The German social rental sector is given as an example to illustrate this, and it is argued

that German social renting was never intended to have a 'universal' role and has often been expanded in times of social tension and need. Heidenheimer et al, use the term 'corporatist', for example, to describe the strong ties between government and producer groups that developed in post-war mass building programmes (Heidenheimer et al, 1990, p119). Self-provided housing is often favoured in a corporatist regime where the householder promotes and partly produces its own dwelling. This is also very common in Germany. This compares with the liberal regime type where self-provided housing is uncommon and state policy favours the interests of large house building firms and credit institutions.

In the social democratic regime type rented and co-operative housing plays a large role and is available to a wide section of the population. It is also noted that states intervene widely in the housing production process, mainly in an effort to keep welfare state costs down. Thus, considerable development gains that might be made in liberal and corporatist regimes are removed in a social democratic regime, usually in a way that reduces housing costs and improves standards. Barlow and Duncan note that in the social democratic regime state intervention is therefore more significant in the production of housing, while in liberal and corporatist regime types state intervention tends to concentrate on consumption.

Classifying countries into specific regime types is difficult as a housing system in any one country may have elements of one or more regime. Barlow and Duncan write "There is no single pure case; countries will contain elements of all regimes and historically change their position" (ibid., p31). However, in the period 1970-1992 some classifications can be made. Barlow and Duncan suggest that Britain has moved more centrally into the liberal regime type, especially since the 1980s, and that the Netherlands, while fitting into alternative regime types for other welfare services, is clearly social democratic in relation to housing provision. France and Germany have traditionally been classified as corporatist welfare states (Esping-Anderson, 1990). There are some indications that housing provision in these countries have 'corporatist' characteristics. The links in the German housing system noted above make this classification clear. However, France does not perhaps display all of the same characteristics described above. Although it does also have a strong emphasis on self-promotion, France also has characteristics of a social democratic regime type in terms of its production process.

Certain patterns can be identified when these welfare regime types are related to trends in housing investment levels in the four countries France, Germany, the Netherlands and the UK. Data presented earlier showed France and Germany to have the highest levels of housing investment (GFCF as a percentage of GDP), and both of these countries have been categorised as 'corporatist' states. The Netherlands also has a high level of housing investment, although not as high as in France and Germany, and fits into the social democratic regime

type. Finally, the UK, which has had a consistently lower level of housing investment, is associated with the liberal regime type. An investigation of the differences in the housing systems associated with the different welfare regimes might, therefore, be able to explain the apparent differences in housing investment levels. One might pose the question: "Are there reasons why forms of provision in a corporatist or social democratic regime type might result in higher levels of investment than in a liberal regime type?". The differences in regime types between countries are clearly manifested in the 'structures' of provision and the organisation of the housing systems.

Similarities are apparent here in the distinctions made between regime types and the distinctions made between forms of housing policies ('supplementary' or 'comprehensive') discussed in the above section. These are both useful categorisations for making comparisons and are clearly linked to the development of welfare states in the four countries. However, an investigation of the differences between welfare state regimes and forms of policy intervention, and their effects on housing investment necessitates an analysis of the structures of provision in each country. If, say, countries with corporatist welfare regimes do tend to have higher levels of housing investment, it is likely that this will be facilitated through its structures of provision. This is because, as discussed above, structures of provision have been discerned as a major differentiating factor between the regime types. More specific analysis of the structures of housing systems and forms of housing policy interventions in the four countries, and the possible effects of housing investment will be reported in chapters six and seven.

5.3 The changing nature of government intervention

Welfare provision and the government's role in housing continued to grow, or at least maintain its position in most European countries throughout the 1950s and 1960s. However, the beginning of the 1970s saw a turning point in the scope of government intervention, including its role in housing. This occurred, in part, because of wider problems and criticisms of the welfare state itself. Criticisms of the welfare state had existed throughout the 1950s and 1960s (Johnson, 1987, p31), but their impact on its continued growth had not been significant. However, by the 1970s a number of 'problems' or 'crises' occurring at the same time led to what has been termed as the "legitimation crisis" of the welfare state (ibid., p31).

Johnson gives three main causes that combined to create the crisis point. Firstly, there were economic problems in the early 1970s, connected especially to the oil crisis in 1973, and the ensuing world economic recession. As a result many industrialised nations were characterised by low rates of economic growth, high unemployment and lower rates of investment.

The second problem that Johnson argues influenced the legitimation crisis is the problem of government, in particular 'government overload'. There are considerable theoretical focuses as to the causes and consequences of government overload (see Rose, 1984; Brittan, 1977 and King, 1975), but the basic argument lies in the theory that as the role of the government grew its administration, bureaucracy and the whole system becomes overloaded, "to the point of inefficiency and ineffectiveness" (Johnson, 1987, p34). In addition it is argued that as government provision increases people expect more services than the government can realistically provide, culminating in a crisis point.

The final cause, noted by Johnson, is fiscal problems. Fiscal problems are associated with governments overstretching their resources and can be seen as the financial consequences of the problems of government. Fiscal problems arose as governments continued to increase public expenditure without being in a position of recouping revenue through taxes. This issue has also attracted considerable theoretical debate, particularly by O'Connor (1973) in his book, 'The fiscal crisis of the state', (see also Kohl, 1981; Offe, 1984 and Habermas, 1976).

Johnson (and others, see above) argues that these factors together have created a legitimation crisis in the welfare state. He writes that, "If, because of economic, administrative and fiscal problems, the welfare state cannot deliver what it promises, or what people expect of it, then it begins to lose mass support; there is a loss of legitimacy" (op cit., p40). All of these factors have influenced governments' attitude to the welfare state in some way. There was at this time a comprehensive restructuring of the welfare state in many European countries. Gough writes that, "The growth of the welfare state ..(in the UK)..and abroad came to an abrupt end in the mid-1970s" (Gough, 1979, p128). In many countries governments have tended to reduce public expenditure programmes and redefine for themselves a less dominant role in welfare provision. The extent and rate of state 'withdrawal', varied from country to country, but can be seen clearly in the policy decisions taken in France, Germany, the Netherlands and the UK during the 1970s and early 1980s. Johnson describes the change in emphasis and attitude to the welfare state as leading to a position of "welfare pluralism", resulting in, "a reduction or reversal of the state's dominance in welfare provision and an increase in the role of the informal, voluntary and commercial sectors" (ibid., p54).

Housing was one policy area that was particularly targeted for public expenditure cuts and a distinct shift in policy emphasis can also be traced to this time. The so-called 'fiscal crisis of the state', and other problems in the welfare state played a role in influencing policy changes. However, other factors related more to the state of housing itself in European countries also had a significant effect. One of the main factors in the change in emphasis within housing

policy was the belief that housing was less a 'problem' by the 1970s than it had once been. Housing policies after the war mainly took the form of subsidies to the producers of housing, which were initiated as part of the major rebuilding plans to reduce severe housing shortages. These continued to a large extent throughout the 1950s and 1960s. However, by the early 1970s housing subsidy policies began to be re-evaluated as it was thought that the building programmes had met the absolute housing shortages in Europe. There was instead greater concern over the quality of the stock and policies for improvements.

This switch from 'producer' to 'consumer' subsidies was, however, also prompted by the concern over levels of government expenditure on housing. The general objective of reducing spending on production also tied in with a further belief of many governments in Europe that the distributional effects of introducing an income-related subsidy would be more beneficial than continuing to support housing production. It was argued that since the major housing shortages had been alleviated subsidies could be better targeted to those 'in most need'. In this way housing allowances could cushion lower income households from the worst effects (i.e. rent increases) of the reduction in spending to rented housing suppliers.

It was also seen as a more efficient use of government spending as public funds were not 'wasted' on households who did not really need them. Therefore, as object subsidies began to be reduced in the early 1970s so housing allowance schemes were being introduced and expanded. In the UK the Housing Finance Act of 1972 introduced a national rent rebate and allowance scheme, and the housing allowance scheme initiated in 1970 in the Netherlands was substantially expanded in 1975. The German 'Wohngeld' housing allowance was originally introduced in 1965, and extended in 1970, and the French housing allowance APL (Aide Personnalisée au Logement) was introduced in 1977.

The need for housing allowance schemes was also perpetuated by the move in many countries to a more market orientated housing policy, which was also prompted in part by economic and fiscal problems. Ideologically, many governments began to believe that markets could play a beneficent role in the supply of housing and were capable of responding both flexibly and effectively to changing consumer demands and tastes (Kemp, 1990). It was thought that subject subsidies to consumers would therefore interfere less in the market than would producer subsidies. As rents moved more in line with market rents in Europe, so the need grew for increased subsidies to low income groups. More generally, these changes together, are indicative of the 'privatisation' of housing, which is viewed by Lundqvist as a part of welfare state contraction (Lundqvist, 1992, p2). This is illustrated particularly in the increasing role of the free market and a shift in responsibility away from the government.

In terms of government support for housing there was then a clear movement towards subsidising consumption rather than production of housing. However, while it was a declared aim to move away from object to subject subsidies to reduce government spending, the subsequent increases in housing allowance budgets (and other subsidies such as tax expenditures) have meant that in many countries actual housing expenditures increased. In the Netherlands there was a 'massive increase in government expenditure on housing' (Boelhouwer and Priemus, 1990). In West Germany while the sum of public expenditure on social housing and housing allowances decreased in real terms, "Tax expenditure, which largely favours owner occupation increased in real terms" (Tomann, 1990). In the UK between 1979/80 and 1989/90 public expenditure on housing on the Treasury definition fell by 43 per cent in cash terms. Current housing subsidies to local authorities fell by 55 per cent and net capital expenditure by 86 per cent. However, the cost of housing benefits rose by 364 per cent and mortgage interest tax relief by 327 per cent in cash terms. Johnson argues that although some form of retrenchment in the welfare state took place and governments did reduce their role by privatising some areas of housing provision, public support for the sector overall did not actually diminish (Johnson, 1987, p53). However, it is highly probable that changes in policy emphasis that were initiated at this time particularly in switching subsidies from the supply side to the demand side, have had some effect on housing investment levels.

Specific policies in the four countries, France, Germany, the Netherlands and the UK, have had specific effects on housing investment levels. These will now be examined in more detail for the period 1970-1992 to explore the extent of policy effects on housing investment.

5.4 Housing investment and housing policy

The previous sections in this chapter have examined how the growth and development of the welfare state and state intervention have affected housing in France, Germany, the Netherlands and the UK. It has been shown that the historical development of the welfare provision of housing has influenced the types and extent of government intervention, control and housing policies in the four countries. Differences are apparent between the countries. It was suggested that the policy decisions taken in the different countries might have had a direct effect on levels of housing investment.

Focusing on the period 1970-1992, levels of housing investment will be examined alongside the main policy changes in each country to consider the effects of policy on investment levels. Periods of increasing or decreasing investment will be examined, in particular, in an attempt to identify possible policy initiatives that might have influenced the changes within countries. A

comparative section will then analyse the influence of policy in accounting for differences in housing investment between countries.

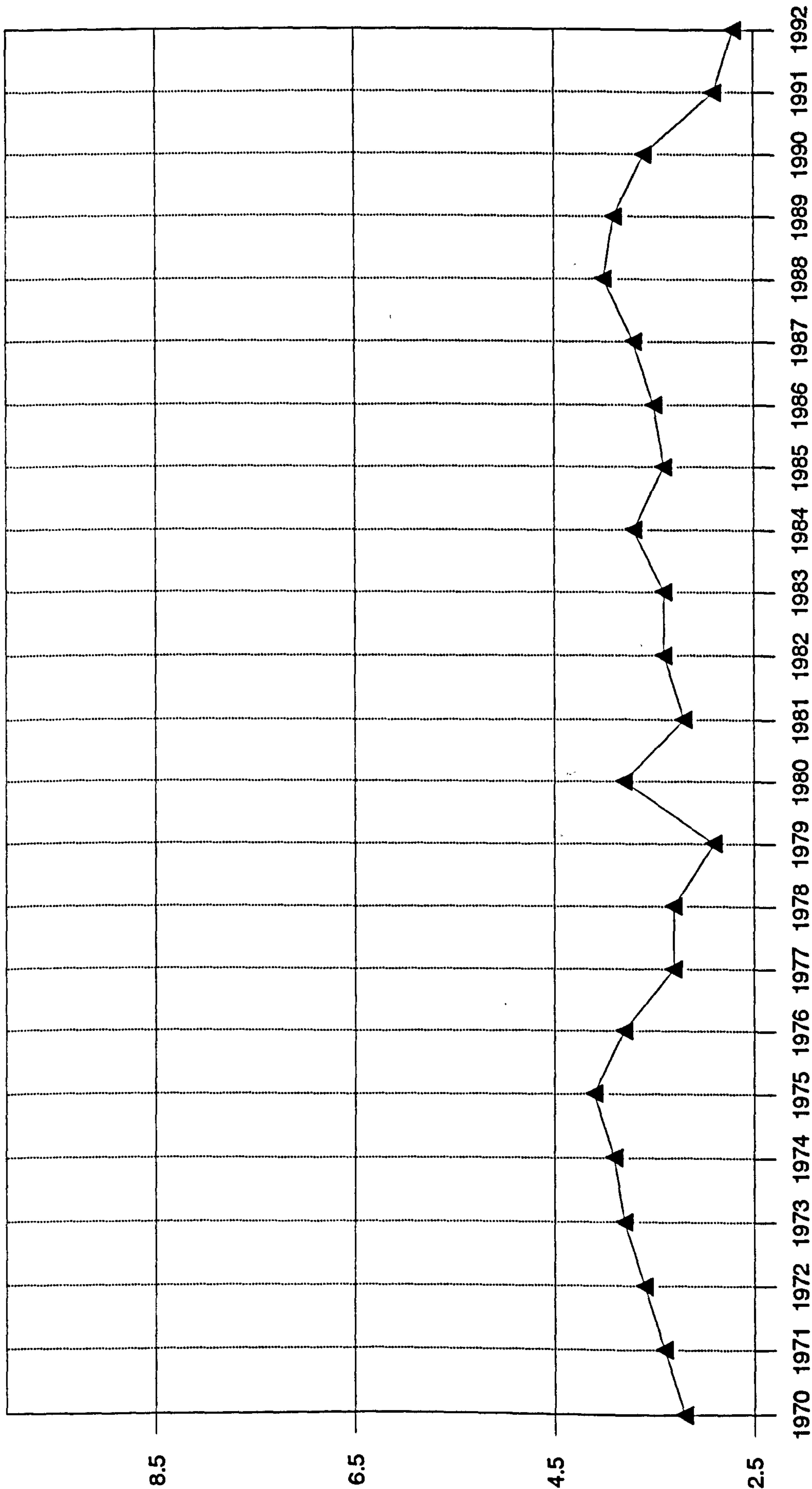
The two indicators of housing investment that will be examined in relation to policy change are Gross Fixed Capital Formation in residential buildings as a percentage of GDP and the number of dwellings completed per 1000 population.

5.4.1 United Kingdom

Trends in housing investment in the UK are illustrated in Figures 5.2 and 5.3 (while data reflects the position in the United Kingdom, much of the policy information in this section relates to England). Figure 5.2 shows that although there has been an overall decrease in GFCF in housing from 1970 to 1992, there has during the period actually been some periods of increase. By comparison, Figure 5.3 reflecting the number of dwellings constructed, illustrates more clearly an almost continuous decline over the same time span. The differences between these two indicators, as discussed in earlier chapters, is largely connected with the effects of the improvement work component in the GFCF data. Differences in the trends, where apparent, between the two indicators may be partly attributed to this factor. Between 1970 and 1975 GFCF in housing increased from 3.2 per cent of GDP to 4.1 per cent of GDP, its highest point throughout the twenty year period. For the same time period Figure 5.3 shows a decrease in the number of dwellings completed. This fall in dwelling construction in the early 1970s has clear links to government policy. Although the Labour government introduced some private sector incentives for housing construction which had led to some increases in the number of dwellings built in that sector, overall dwelling completions had been falling since the late 1960s. This was related to the scrapping in 1968 of the national housing plan which was introduced in 1965 with the aim of increasing house building (Merrett, 1979, p256-259).

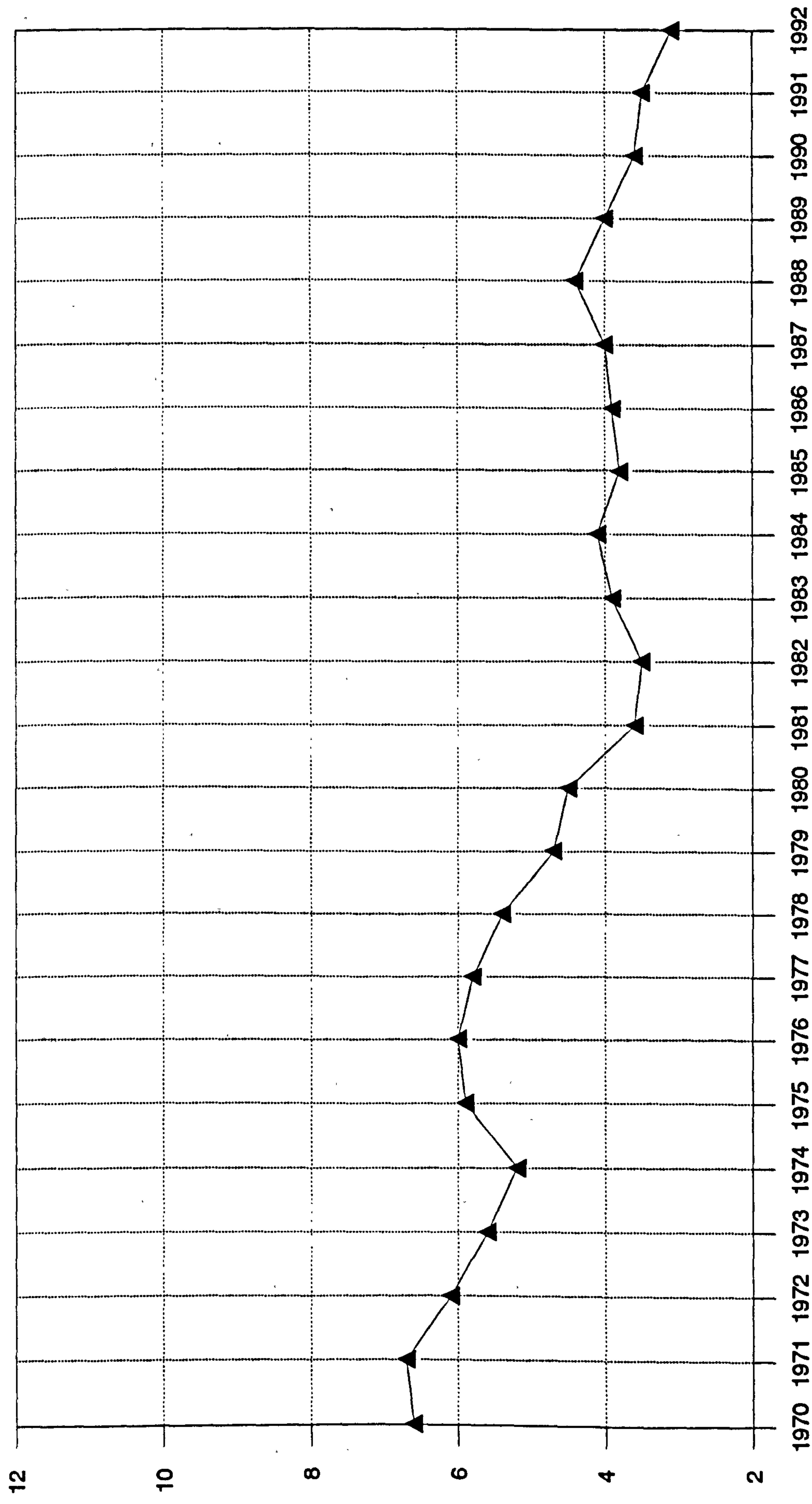
From the beginning of the 1970s the Conservative government, while continuing to actively support the private sector, began the process of reducing the role of local authorities and restricting their house building activities. The 1972 Housing Finance Act deregulated rents, altered the funding system from fixed capital subsidies to deficit revenue subsidies, and began to encourage local authorities to sell dwellings to tenants. There was a consensus that too much public expenditure was going to housing, for reasons discussed in the above section, and the emphasis of policy was shifted, as in other European countries, to the improvement of dwellings. There was a general change in policy at this time from slum clearance and redevelopment to rehabilitation. Merrett notes that this change resulted in a massive fall in the quantity of local authority starts which declined at "an average compound rate of 12 per cent

Figure 5.2: GFCF in residential buildings as a % of GDP, UK



Source: United Nations (1993)

Figure 5.3: Dwellings completed per 1000 inhabitants, UK



Source: United Nations (1993), European Commission (1994)

in the six years after 1967" (ibid., p261). The switch to the financing of rehabilitation was significant in the early 1970s; the number of rehabilitation grants to local authorities increased from 59,000 in 1969 to 188,000, and the number of improvement grants to private owners increased from 80,263 in 1969 to 260,364 in 1973 (ibid., p261 and p115). The 1972 Act also introduced for the first time a national housing allowance scheme in the form of rent rebates and rent allowances and thus signalled a major switch from production to consumption support.

These policies affecting housing construction and rehabilitation in the early 1970s can provide explanations for the trends in both housing investment indicators. It is clear that shifts in policy emphasis reduced the number of dwellings constructed. At the same time the dramatic increase in the number of improvement grants awarded to all housing sectors could explain why the overall level of GFCF in housing increased, at a time of falling house completions. However, while it is clear that government housing policy initiatives changed the emphasis of construction and rehabilitation, with its resulting effects on investment, the reasons for policy change at this time were not wholly related to housing. It was rather the poor state of the economy that was the major impetus to many of the housing policy changes initiated during this period. In the late 1960s the pound was devalued and in following years the UK experienced volatile interest rates, increases in inflation, slow growth and rising unemployment. Merrett writes "There has probably been no other period in modern British history when the impact of broad macro-economic trends on the sphere of housing has been starker or more powerful than has been the case since the late 1960s" (ibid., pp259-260). Cuts in public expenditure and expenditure on housing can be directly linked to the economic situation at that time. Economic conditions continued to affect the housing market and housing investment levels throughout this period.

Trends in housing investment in the early 1970s can be seen to have economic and housing policy related causes. Both sets of policies continued to influence housing investment outcomes throughout the 1970s and early 1980s. Economic recession following the oil crisis in 1973 resulted in high inflation, rising interest rates and balance of payment problems. Public expenditure on housing continued to be cut. At this time local authority housing investment dropped as grants for construction were cut and house building reduced. At the same time private sector mortgages became increasingly difficult to obtain because of economic uncertainty and housing construction in all sectors subsequently fell.

During the period after 1975 a significant cause of falling investment and falling construction rates was the shift from subsidising production, to subsidising the consumption of housing. After 1981 the trends in housing investment for both indicators were very similar. The UK

experienced a slow gradual rise in GFCF in housing and dwelling construction levels up to 1988 from which time a steady decrease has taken place. This pattern can be attributed almost completely to the development of the private owner occupied housing sector, and specific policies that have affected it. Since 1979 policies promoting owner occupation have been introduced by a Conservative government that had a strong emphasis on the free market, and believed in minimising state intervention. During the first few years in office housing policies successively reduced the role of local authorities in housing and increased private home ownership. In the 1980 Housing Act grants to local authorities were cut as public expenditure switched from the supply to the demand side. The Right to Buy initiative was also introduced in this Act which began a huge shift in local authority rented dwellings to the owner occupied sector. By the early 1990s over 1.5 million dwellings had been transferred into home ownership. At the same time the share of private sector new construction increased.

Mortgages became easily obtainable and home ownership as a form of tenure was heavily promoted by the government. The value of tax relief on mortgage interest more than doubled during the 1980s, to £7.7 billion in 1990/91 (Aughton and Malpass, 1994, p91). "Subsidies to council tenants were cut by 31 per cent in the first six years of the Thatcher government, compared to an increase in subsidies to owner-occupiers of 212 per cent" (Cole and Furbey, 1994, p198). These policies contributed to the rising rates of construction, seen in Figure 5.3, during the 1980s and the gradual rise in GFCF in housing over the same period. The switch of public expenditure from construction to housing benefit and social security payments affected local authority housing considerably. As a result of large cuts in government capital investment council house provision declined sharply. Although one aim of policy changes was also to cut public expenditure, by the mid-1980s, it was clear that expenditure on housing consumption remained very high (see section 5.3).

The final phase of housing investment from 1988 can be seen in both Figures 5.2 and 5.3, and is highly correlated with the collapse in the private housing market and economic recession. Housing demand in the late eighties, rising at a faster rate than supply led to a huge increase in house prices which then fell sharply after 1990 as a result of negative equity, repossessions, collapsing expectations and fears of unemployment (Kleinman, 1995, p24). These factors together with high interest rates and growing unemployment in the late eighties and early nineties led to a dramatic fall in housing transactions and construction, and have clearly contributed to the decrease in investment apparent since 1988. In addition to housing policy measures it is clear that specific economic conditions and policies also have a significant effect on housing investment.

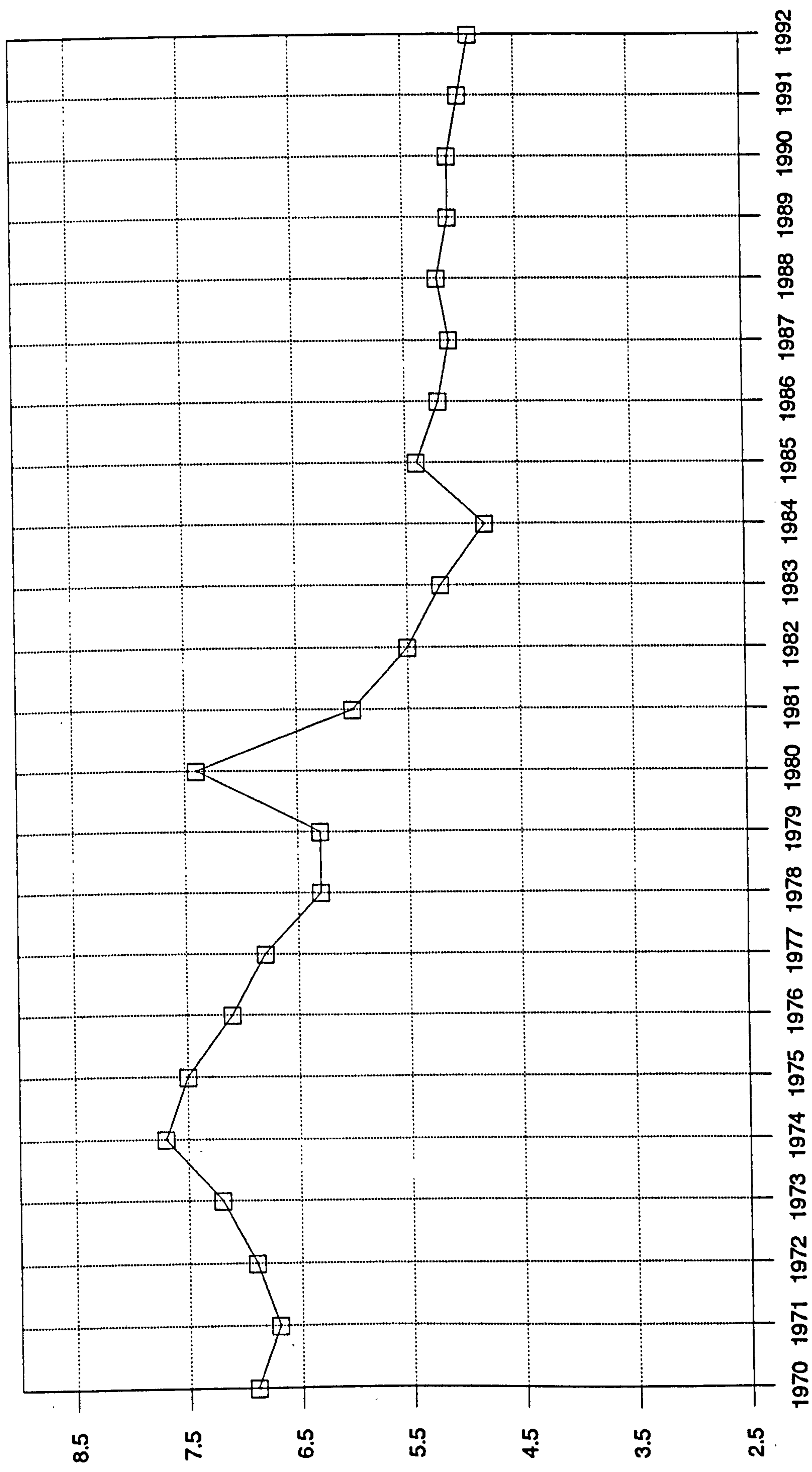
This analysis has shown a significant relationship between housing investment and housing policies in the UK, from 1970 to 1992. Two distinct effects are noticeable. Firstly, that falling levels of housing investment (and dwelling construction) appear to be influenced by a combination of economic recession and housing market slumps, rather than housing policies designed to reduce investment (seen in mid-1970s and late-1980s/early 1990s). Secondly, that increases in housing investment and dwelling production seem more specifically related to housing policy initiatives to increase capital investment, either in construction or rehabilitation. This was seen in the early 1970s with increases in rehabilitation work, and in the early 1980s with increases in owner occupation. These trends might alternatively be seen more generally as a symptom of boom-bust economic policy or the nature of a housing policy in the UK which tends to adjust to economic circumstances.

5.4.2 France

Housing investment levels in France for the period 1970-1992 are illustrated in Figures 5.4 and 5.5. Figure 5.4 representing GFCF in housing shows a substantial decline between 1970 and 1992, from 6.9 to 4.9 per cent of GDP. This represents the most significant decline of all the four countries. In the early 1970s there were some years of increasing housing investment, also apparent in the UK at this time. After 1974 French housing investment declined steadily, interrupted by small increases in 1980 and 1985. The second housing investment indicator, the number of dwellings completed per 1000 inhabitants, illustrates a steady and almost continuous decline between 1970 and 1992, with increases of any significance occurring only in 1972 and 1988.

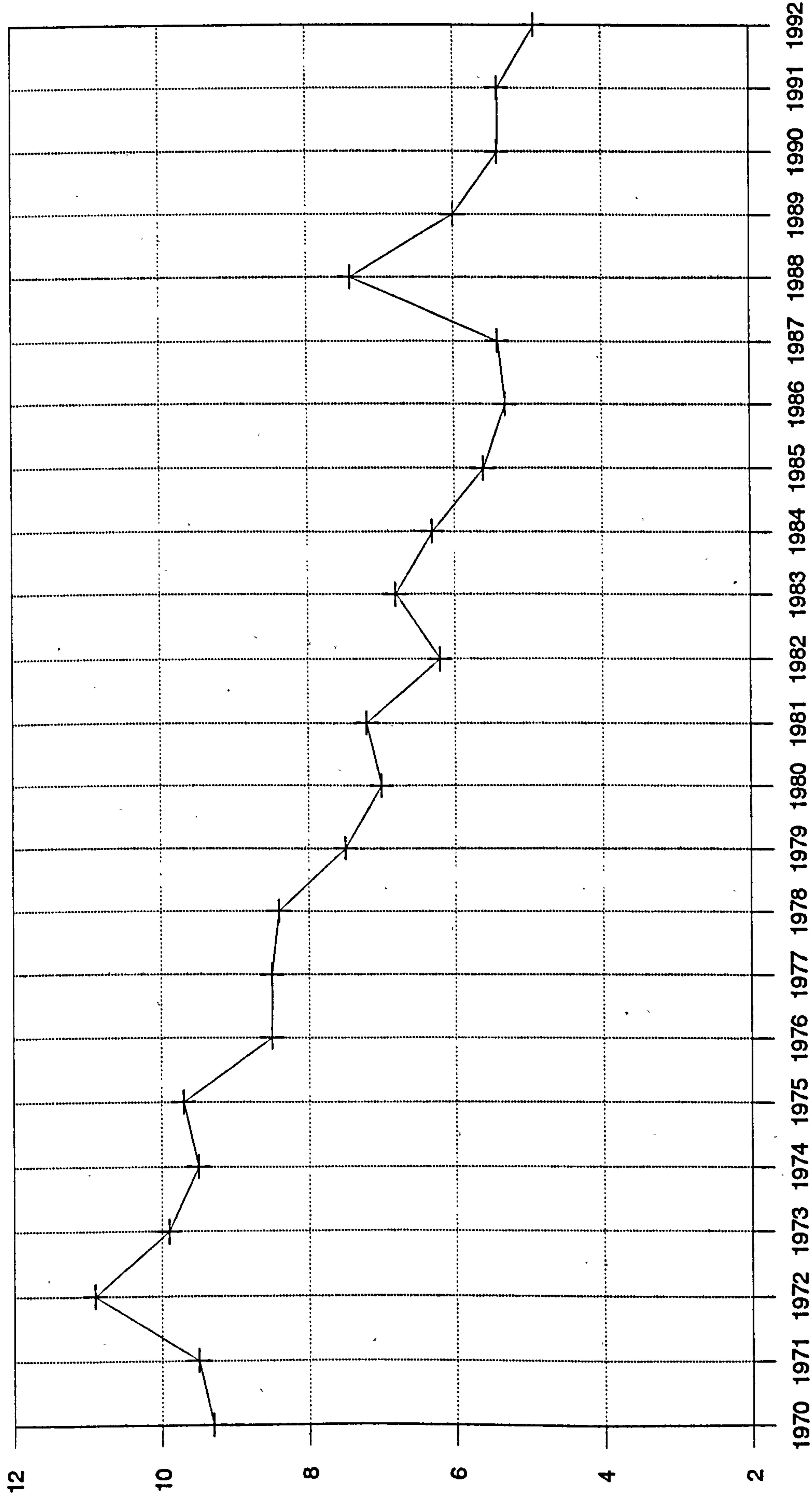
During the 1950s and 1960s in France the state played a significant role in the subsidisation of social - HLM - dwellings (see chapter six for details on HLM dwellings) which accounted for a large proportion of new construction. Construction output was increasing throughout this time and, from the mid-1960s, was aided by state subsidies to housing production, low inflation rates, rent increases and very strong demand (Marchal, 1989, p33). Post-war shortages had been severe and high and continued levels of construction were necessary. The level of housing output peaked in 1972 when 546,321 dwellings were built. This peak can be seen in Figure 5.5. State intervention had been maintained during this period because of a lack of private sector response to the housing shortages. Kleinman also noted that this high level of investment had been maintained, "partly as a consequence of the lower quality of the existing stock in France and the later timing of urban to rural migration, by comparison with other countries" (Kleinman, 1995, p24). However, after 1970 there was a clear change in policy synonymous with that across Europe.

Figure 5.4: GFCF in residential buildings as a % of GDP, France



Source: United Nations (1993)

Figure 5.5: Dwellings completed per 1000 inhabitants, France



Source: United Nations (1993), European Commission (1994)

In a desire to cut public expenditure on housing, the French government began to promote alternative methods of financing construction. High interest savings accounts for owner occupation were established and there was a more general switch from public to private finance for the construction of new dwellings. Private sector construction had a significant impact on total investment levels as a result of these measures. The proportion of private non-assisted housing increased considerably in the early 1970s from a level of 14 per cent of overall construction to 42 per cent in 1975 (Boucher, 1988, p301).

In spite of cuts to levels of public housing investment, it would appear that increasing private investment more than compensated. The policy changes that encouraged private sector development provide some explanation for the increase in GFCF in housing from 1970 to 1975 as illustrated in Figure 5.4. However, Boelhouwer and Heijden also note that, "Growth in the housing market also owed much to the favourable economic situation at the time" (Boelhouwer and Heijden, 1992, p216).

Figures 5.4 and 5.5 illustrate a sharp decline in housing investment in France from the mid-1970s. As economic recession hit France at this time the housing market slumped dramatically due to high interest rates, inflation, increasing construction costs and a fall in the demand for housing as real incomes fell. This situation had a significant effect on housing construction and investment levels. However, at the same time there was increasing pressure in France to concentrate policy on the quality and not the quantity of housing. A number of national reports emphasised this shift in focus. For example, the 1975 Nora and Eveno report claimed that the government's role should be to improve the existing stock and assist low income groups; emphasising that the free market could now meet housing needs. In addition the Barre report (1975) noted problems in the housing finance system and the inflationary effect of government housing expenditure. This report also suggested the need to move to a more market orientated system. The government's 1977 Housing Act took on some of these points. It can be seen as representing a major re-organisation in the housing system and marking a turning point in housing policy.

Several previous policy instruments were abandoned in favour of new forms of subsidised loans and assistance for improvement work, in a more simplified housing finance system. In addition, considerably more emphasis was put on income related housing subsidies rather than production subsidies. There was a greater reliance on market forces, the promotion (and subsidisation) of home ownership and reductions in government expenditure, with a continued emphasis on quality and rehabilitation and not quantity. These policy changes seem to have had a considerable effect on construction levels as shown in Figure 5.5. Dwellings completed per 1000 inhabitants fell from 10.9 to 7.0, between 1972 and 1980.

There was a significant increase in investment in improvement work from 1978 up until the mid-1980s. The number of home improvement grants allocated increased from 85,517 in 1981 to 198,056 in 1984 (Marchal, 1989, p40). However, while this might explain the increase in GFCF in housing in 1980, the increase in improvement investment was not sufficient to prevent an overall decline in housing investment during this period. This decline could partly be attributed to the economic crisis that continued into the 1980s.

In 1981 a new Socialist-Communist government came to power and although there were major reforms to many large institutions there was little alteration to housing policy in France. Boelhouwer and Heijden (1992) quote Van Giessen (1983) who suggested two explanations for this. Firstly, that at that time housing was not regarded as a political issue in France and secondly, that "even among the élite, housing was not a subject of political discussion". They go on to argue that, "the policy pursued during the 1980s combined with the economic crisis of these years, led to a steady decline in the level of new housing construction." (op cit., pp219-222).

By the mid-1980s, however, it was accepted that there was a crisis in housing construction. There was high unemployment in the construction industry and despite a fall in the number of completions, housing demand was still high. From 1985 the government began to implement a number of measures to revive housing construction. These were focused particularly on owner occupation which was becoming more popular, but private landlords and HLM organisations were also subsidised to increase construction levels. A new liberal government came to power in 1986 and continued to increase deregulation in the housing market. In addition substantial increases in public expenditure were introduced in 1987, specifically to increase construction levels. New legislation was introduced which was aimed at encouraging investment in the private rented sector.

These policies provide some explanation for the spurt in housing construction around 1987 and 1988. The French government continued to respond to problems and shortages in the housing market into the early 1990s. If housing was seen as a low priority at the beginning of the 1980s, by the end of the decade its importance had increased considerably. In 1990 the Ministry of Equipment and Housing's budget had increased by 7.5 per cent on the previous year, and, after education, was the most important public investment programme (Boelhouwer and Heijden, 1992, p228). While other countries have reduced housing budgets and expenditure significantly, it has remained a priority in France into the 1990s because of the governments' recognition of problems in the housing market.

While the increase in expenditure has not led to an increase in dwelling construction (see Figure 5.5) it is likely to have contributed to the stabilisation of overall GFCF in housing shown in Figure 5.4. Since 1984 housing investment in France has remained at a relatively constant level after many years of decline.

As in the UK a mixture of housing policies and the prevailing economic climate have had an effect on housing investment levels during this period. France would appear to be different from many other countries in becoming more interventionist in its housing policy, at a time of large scale privatisation in the housing market. This has helped to maintain a relatively high level of housing investment in comparison to other countries, particularly the UK.

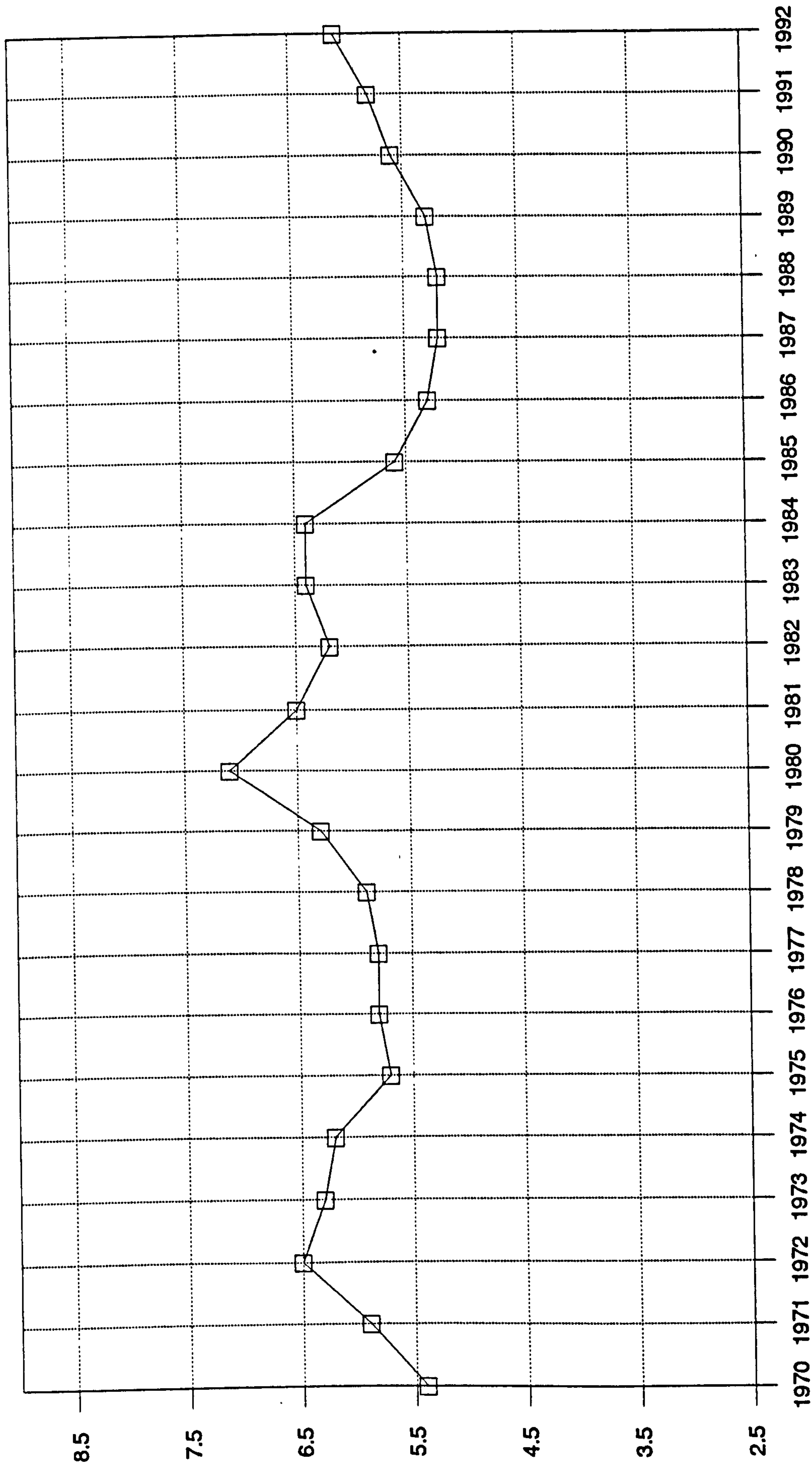
5.4.3 Germany

Housing investment trends during the period 1970-1992 in Germany are illustrated in Figures 5.6 and 5.7. Figure 5.6 shows how Germany, in a unique position for the four countries being examined, had a higher level of housing investment at the end of the period than at the beginning. Although there have been some fluctuations, particularly around 1980 and 1987, housing investment has tended to remain at a high and fairly stable level between 1970 and 1992 (between around 5.5 and 6.5 per cent of GDP), relative to other countries. In 1970 GFCF in housing stood at 5.4 per cent of GDP; in 1992 it was 6.1 per cent of GDP. This was more than double the level of GFCF in housing in the UK in 1992.

In comparison, the number of dwellings completed per 1000 inhabitants in Germany, illustrated in Figure 5.7, shows a considerable decline during the period. Housing completions peaked in 1973 when 714,226 dwellings were built (Duvigneau and Schönefeldt, 1989, p29), equivalent to 11.5 dwellings per 1000 inhabitants. By 1988 German construction levels had fallen to 3.4 dwellings per 1000 inhabitants, the lowest of the four countries in that year. Between 1988 and 1992 a not insignificant increase in both GFCF in housing and construction levels can be identified. Although the peaks and troughs of housing construction are more extreme, the trend between 1970 and 1992 broadly reflects the trend for housing investment illustrated in Figure 5.6.

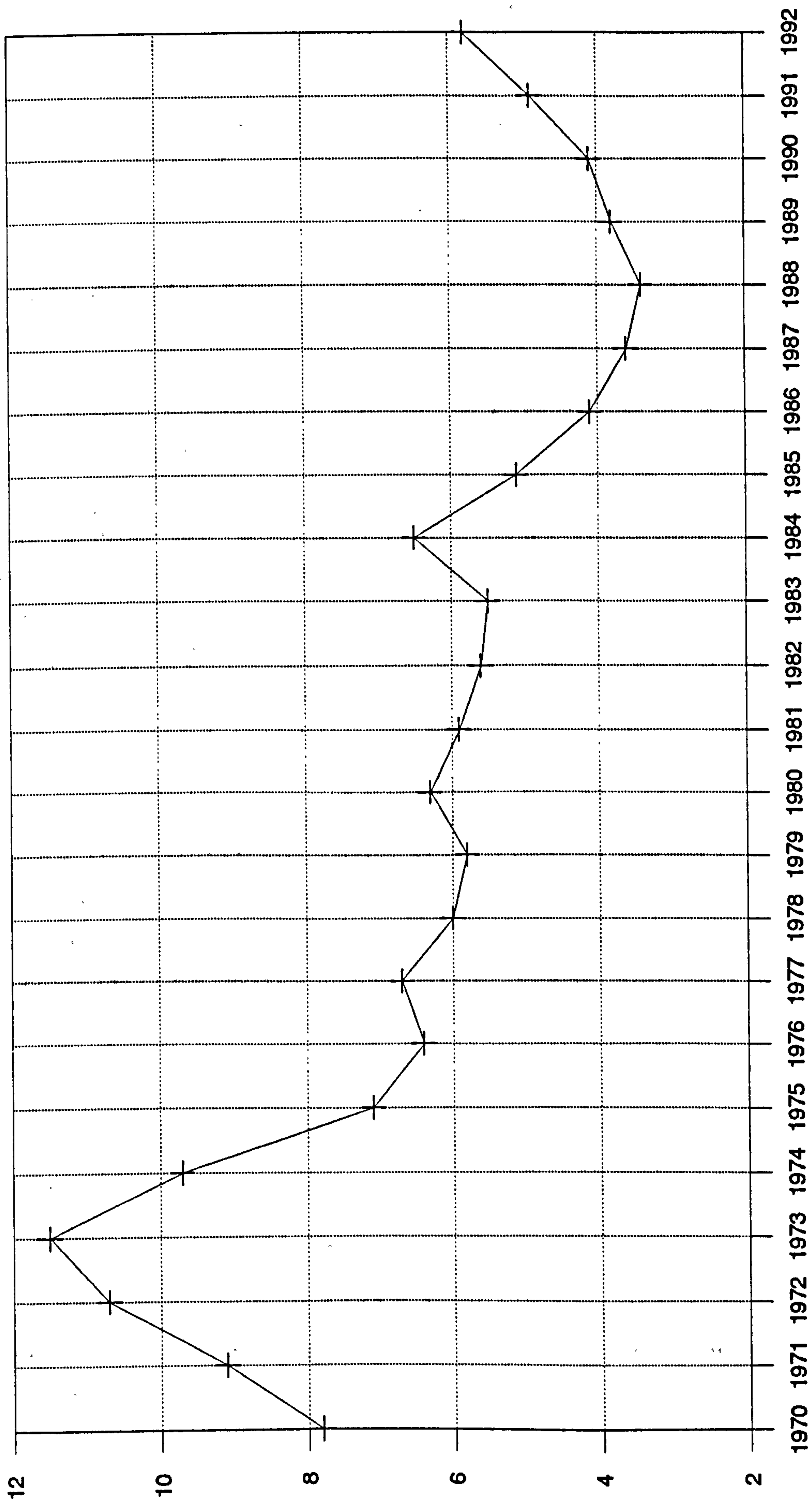
At the beginning of this period high rates of dwelling construction and investment are clear in the data for both indicators. There may be a number of causes. Government involvement in housing production up to this time had been quite significant and policies responding to high levels of housing demand had increased housing construction. At this time there were considerable subsidies for building in the social sector, which was encouraged by government to increase the size of the social stock and protect low income groups from rent increases

Figure 5.6: GFCF in residential buildings as a % of GDP, Germany



Source: United Nations (1993)

Figure 5.7: Dwellings completed per 1000 inhabitants, Germany



Source: United Nations (1993), European Commission (1994)

(Boelhouwer and Heijden, 1992, p122). In addition there were broad policy initiatives aimed at encouraging owner occupation. Together with a high rate of inflation in the late 1960s and early 1970s, these government measures can be seen to have contributed to a house building 'boom' as illustrated in the data.

The decline in construction and housing investment after 1973 that is reflected in the figures is associated with a distinct change in the emphasis of housing policy. Following high levels of construction in the period 1969-73, new building had a lower priority in government policy. There was instead a shift towards improving quality, planning and urban renewal and subsidising the demand for housing. Greater proportions of subsidy were also given to owner occupation rather than to the social rental sector.

The oil crisis also had a dramatic effect on the economy and increased pressure on the government to reduce public expenditure. These changes are particularly noticeable in policies introduced from 1976, when a new government administration came to power under Chancellor Schmidt. Public spending on housing production was cut and legislation such as the Housing Rehabilitation Act (1976) emphasised a shift to improvement work. There was also a concern to target spending to groups in most need through both housing allowances and any new social housing that was built. The reduction in support for new building is reflected in the decline in housing construction apparent in Figure 5.7, particularly between 1973 and 1976. Contrary to this policy and the poor economic situation there was still a clear increase in housing investment (GFCF in housing as a percentage of GDP) up to 1980 illustrated in Figure 5.6. This could, in part, be associated with the increase in improvement work following the 1976 Act. However, 1976 also saw the introduction of a significant piece of legislation to encourage owner occupation. Tax losses related to housing (particularly from owner occupiers) increased from DM1.55bn in 1975 to DM4.2bn in 1980. At the same time completions in the owner occupied sector increased from just over 150,000 in 1975 to more than 200,000 in 1980 (Bundesministerium, 1990, p237 and p371). Increases in investment in this sector could also partially explain higher levels of GFCF in housing in the late 1970s.

From the early 1980s Chancellor Schmidt continued to encourage the private sector's role in housing construction and changes in the finance system reflected this.

From 1984 until 1988 as can be seen in both Figures 5.6 and 5.7, there was a considerable drop in dwellings constructed and GFCF in housing. This can be associated, in part, with a significant withdrawal of state support for housing during these years. While the central government continued to provide subsidies for social home ownership it was thought that subsidised rented housing should be financed by the individual Länder governments. From

1985 the federal government abolished all its supply-side support for rented housing in line with this policy aim. At the same time incentives for increasing owner occupation did not appear to have increased the size of the sector very significantly and consequently changes were made to taxes in this sector. Instead of owner occupation being regarded as an investment good it was seen as a consumption good. This ended tax relief on mortgage interest and tax on the rentable value of a property, and a new tax allowance for owner occupiers (Baukindergeld) was introduced (Boelhouwer and Heijden, 1992, p129). However, the high cost of becoming a homeowner in Germany, continued to prevent increases in the size of the sector. In the rented sector, although rent legislation was introduced to increase private investment, construction levels in both subsidised and unsubsidised housing continued to decline until 1988.

Boelhouwer and Heijden note that the increasing role of the market in provision and the decentralisation of government responsibilities between 1983 and 1989 marked a major change in housing policy and was compounded by many problems. In particular forecasts of a declining population in Germany led to much uncertainty about future levels of housing demand which affected levels of new house building. Other problems included vast differences between construction costs and initial rent levels, stagnating real incomes, increasing unemployment and as a result pessimism about future prospects in the housing market (ibid., p130). All of these factors contributed to falling private sector investment during this period and culminated in a low in dwelling construction of 208,621 in 1988. Social housing construction fell from 104,083 units in 1983 to just 38,886 units in 1988 (Statistisches Bundesamt, 1993).

From 1988 to 1992 there were significant increases in both the number of dwellings completed and in GFCF in housing. This turn around in production and investment could in part be related to housing policy changes, which were a consequence of the re-unification of Germany in 1989. By the end of the 1980s, in spite of the forecasts to the contrary, the population level and the number of households had increased leading to an increase in demand for housing. The unification of Germany, and the subsequent increase in movement of ethnic Germans and immigrants into the country, also clearly played a role in increasing demand. However, in addition to these factors the 1987 census revealed a shortage of one million dwellings in the country which was by no means anticipated, (Eekhoff, 1989, p371).

As a result of the increase in demand for housing many changes were introduced in an attempt to meet the serious shortage of housing. The government announced its main objective from 1990-93 to be the building of one million dwellings (Boelhouwer and Heijden, 1992, p130). Its aim was to introduce a basis for encouraging continued investment in housing, which

included public investment. Specific policies were aimed at improving the tax treatment of private capital investment in rented housing, re-introducing federal government subsidies to social rented housing so that federal and Länder governments share responsibility for funding, and some special measures targeted at specific disadvantaged groups were also introduced. These policies and increased government intervention can be seen to have directly increased construction levels. In the social rented sector alone construction had increased to over 90,000 dwellings by 1991 (Statistisches Bundesamt, 1993). This accounts for a large proportion of the increases in housing investment.

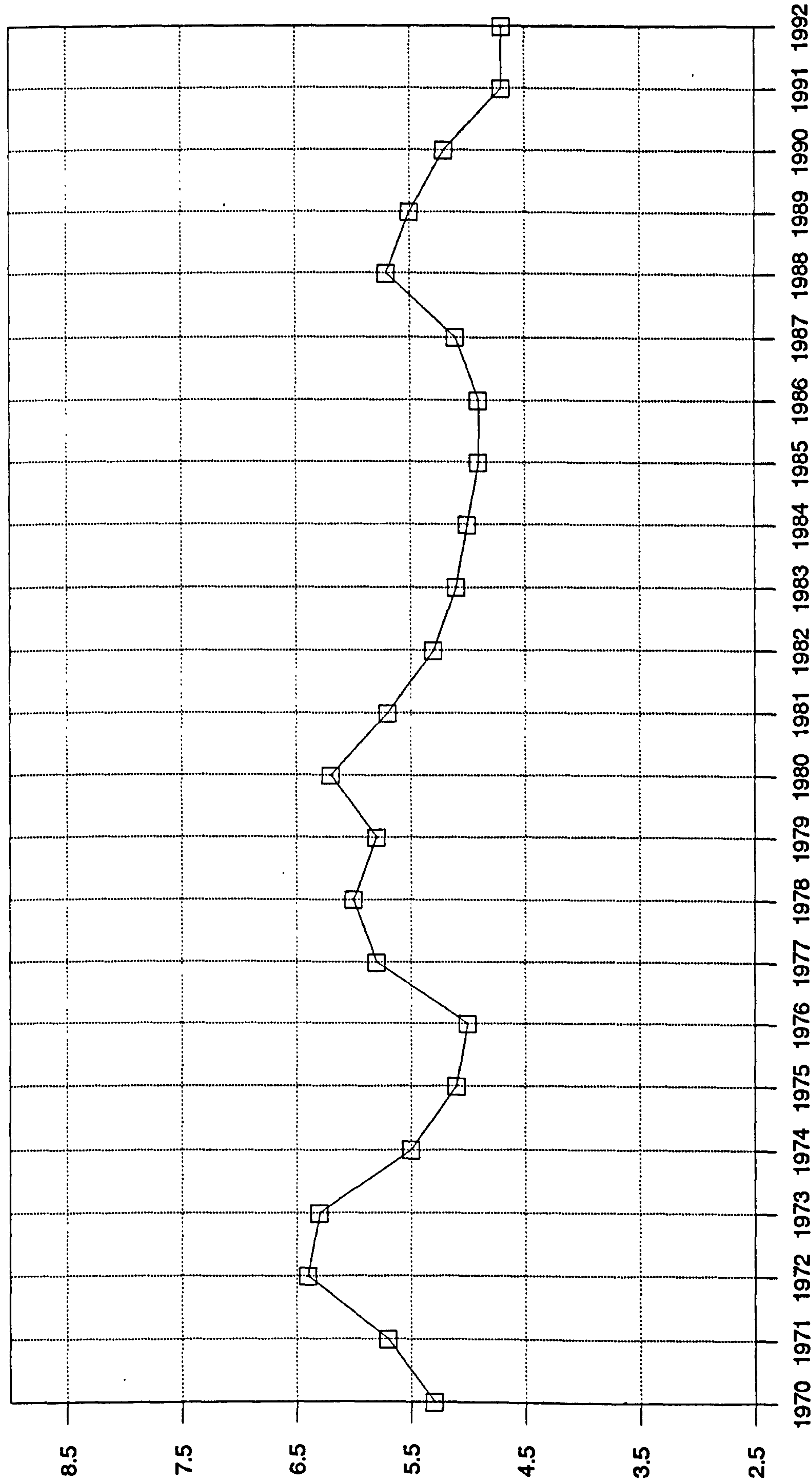
While policy and economic factors seem to have played a role in influencing levels of housing investment in Germany further demographic factors have also had an effect, particularly in the late 1980s. These include the shortage of dwellings discovered in the 1987 census, the sudden increase in population and number of households following the reunification of Germany and the large influx of immigrants and ethnic Germans into the country since 1989. Many of these factors have not been apparent in other countries, and would help to explain the rise in housing investment levels in Germany.

5.4.4 The Netherlands

Figures 5.8 and 5.9 illustrate trends in housing investment in the Netherlands between 1970 and 1992. GFCF in housing as a percentage of GDP has, much like in Germany, remained relatively stable throughout the period. Fluctuations in GFCF in housing have tended to maintain a level between about 5 and 6.5 per cent of GDP from 1970 to 1992 (see Figure 5.8). Figure 5.9 shows that while housing construction was high at the beginning of the 1970s, it fell dramatically after 1973 until the end of the decade. Fairly minor fluctuations took place during the 1980s, until 1988 when there was a quite significant decrease to a low of 5.5 dwellings completed per 1000 inhabitants in 1991. This was, however, the highest construction rate of the four countries in that year.

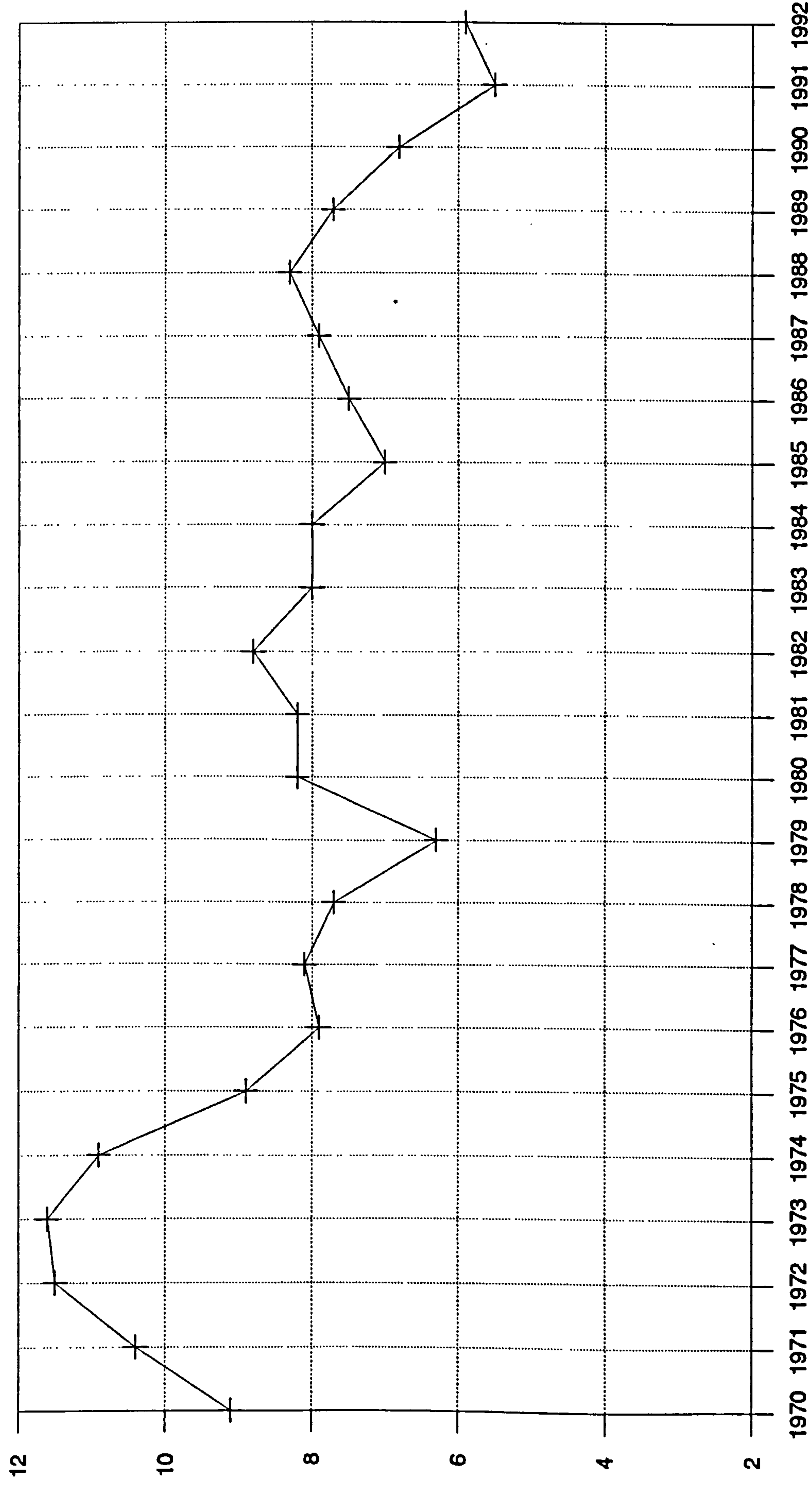
High levels of construction output were maintained during the 1960s and early 1970s, peaking in 1973 when 155,412 dwellings were constructed (Netherlands Ministry of Housing and Physical Planning, 1994). Throughout this time housing remained a high priority with the government, with high levels of financial support for housing production. The government had managed to stay off pressure in the late 1960s to deregulate the housing market and cut subsidy levels. However, by 1971 the government had proposed a White Paper that supported these measures, which included a switch from supply to demand side support and in particular policies to deregulate and harmonise rents. This paper was never formally introduced as the cabinet collapsed a year later. The new government in 1973 saw an "unprecedented fall in

Figure 5.8: GFCF in residential buildings as a % of GDP, Netherlands



Source: United Nations (1993)

Figure 5.9: Dwellings completed per 1000 inhabitants, Netherlands



Source: United Nations (1993), European Commission (1994)

housing production", and massive increases in unemployment, (Boelhouwer and Heijden, 1992, p61). This was partly due to a lack of confidence following the earlier failed White Paper and more general opposition to the idea of deregulation in housing.

In spite of the unpopularity of the policies, the government introduced, "a more sophisticated form of harmonisation" (Harloe and Martens, 1985, p1072) in the White Paper on Rent and Subsidy Policy in 1974. It aimed to make the distribution of income in relation to housing more equal and proposed a mixture of supply and demand side policies. At the same time considerably more investment was directed towards extensive improvement programmes, particularly in the social sector, changing the emphasis to the quality of the existing housing stock.

The decline in dwelling construction continued in the Netherlands until 1979 (see Figure 5.9). A number of factors may have contributed to this. The owner occupied sector had been booming in the early 1970s, but as this continued the private housing market became more and more unstable. House price inflation rose significantly and as a result transactions in the second-hand sector increased, rather than new construction levels. By 1979 stagnating house prices led to a collapse in the housing market. Martens (1985) writes that the stagnation and eventual fall in house prices and the slump in new private construction which then occurred were accelerated by the effects of the economic crisis, high interest rates, falling real incomes and insecurity of employment (quoted in Harloe and Martens, 1985, p1074). The collapse in the housing market and the economic recession during the 1970s clearly had an effect on construction levels. In addition, rented housing construction had begun to fall as supply subsidies were not so widely available (being targeted to only specific groups) but also because new legislation for calculating rents was unpopular, particularly with private landlords, and reduced the incentive to invest. While new construction was falling the change in emphasis to subsidising improvement work may have had some effect on the increase in GFCF in housing, seen in Figure 5.8, from 1976 to 1980. This increase is reflected in the number of dwellings that received subsidies for improvement work. In 1974 27,083 homes were renovated with subsidies, yet by 1978 this number had risen to 48,868 units (Bovy, 1989, p34). This increase may provide a partial explanation for increasing housing investment levels at this time.

By the late 1970s the collapse in the owner occupied housing sector and a resulting increase in demand for renting, led the government to introduce new subsidy measures in an attempt to maintain housing construction. An emphasis was put on increasing subsidies to the social rented sector, and grants for owner occupation were also increased. While non-subsidised construction levels continued to decline, from 34,000 units in 1978 to 6,000 units in 1982,

(Harloe and Martens, 1985, p1074), an increase in subsidised housing, both rented and owned, compensated. Van der Schaar (1987) notes that government policy in the early 1980s was linked simply to reacting to problems in the private sector housing market. A stagnating property market prompted government intervention and an increase in subsidies until the market recovered (Boelhouwer and Heijden, 1992, p69). This illustrates how government housing policies can be used as a tool for regulating private housing market trends.

After 1982, a decline in dwelling construction and GFCF in housing can be seen, in Figures 5.8 and 5.9, until the mid-1980s. This coincided with policies introduced by a new government from 1983. Cuts were made to housing expenditure especially in the rental sectors and the programme for social rental construction also faced cuts. This government introduced greater measures of decentralisation and privatisation, promoting owner occupation and a greater role for the market. Rents were increased for new and existing dwellings and simultaneous cuts were made to rent rebates. Gradually these measures began to take effect on housing construction levels. From 1985 to 1988 the owner occupied sector began to increase its production levels. Total private sector output increased from 58,390 dwellings in 1985 to 74,989 dwellings in 1988 (CBS, 1992). Boelhouwer and Heijden write that the owner occupied sector "was given an important stimulus, not so much by extra subsidies as by the absence of financial burdens introduced in the rented sector", (op cit., p68). A corresponding increase in investment in the private housing sector is reflected in Figures 5.8 and 5.9.

From the late 1980s housing investment again went into decline. A new state secretary for housing introduced a piece of legislation that made significant changes to housing policy. The 1989 White Paper for 'Housing in the 1990s' was important because of its underlying discussion which re-considered the state's role in housing policy, in particular the functions and responsibilities which the government should take (Boelhouwer and Heijden, 1992, p71). Its main aims were to ensure a better functioning of the housing market, ensure a satisfactory quality of housing and promote the need for stability in the market and in the levels of construction (Netherlands Ministry for Housing and Physical Planning, 1989). One of the most significant aspects of the White Paper was the proclaimed need to cut public expenditure on housing. This had become a priority by the early 1990s as financing methods during the previous two decades had been so costly. In particular the dynamic-cost pricing method of harmonising rents, introduced in 1975, had led to massive increases in rent rebates, although its original aim had been to reduce subsidy payments. Specific policies affected both the rental and owner occupied sectors. Rents were increased by 5.5 per cent (instead of the original 3 per cent), and cuts were made to rental sector subsidies as a way of recouping earlier budgetary losses. In addition, some percentage increases in the amount home owners pay on the notional rentable value of their property were made in 1990 (ibid., p73).

Despite some savings from these measures public expenditure levels did continue to increase. However, this was due to continuing payments to redistribute housing and as a result there was little effect on housing supply. Boelhouwer and Heijden note that these changes to policy led the government to anticipate a substantial decline in subsidised housing construction (*ibid.*, p74), although private sector building was expected to increase. The increasing emphasis on the demand side of housing expenditure, away from new capital investment, is reflected in the housing investment data from 1988, illustrated in Figures 5.8 and 5.9.

Particular housing policies in the Netherlands can be seen to have had an effect on housing investment levels. The White Papers of 1974 and 1989, especially, have marked ideological shifts in the thinking behind housing policy and housing policy aims. There is some evidence that both of these Papers and also, for example, the introduction of the dynamic cost rent pricing policy in 1975, may provide a partial explanation for changes in levels of housing investment. In addition it is clear that during this period the state of the economy and of the private sector housing market have played a role in determining housing investment and construction output. It has been shown that the government has in particular used housing policy instruments to encourage the construction of subsidised housing when private sector production levels have been low.

Many factors that influence housing investment are clearly particular to a specific country. Even where apparent similarities can be seen in the types of housing policies and the effects of these policies on investment in the four countries examined, there are detailed differences in the extent of the effects and the nature of the effects. Some of these points will now be examined in a comparative summary.

5.4.5 Comparative summary

The previous sections have illustrated how, within each country, government housing policies may be affecting housing investment levels. The detailed analysis shows that a number of similar housing policy changes have occurred in this time period in each of the four countries. These include, cuts in public capital expenditure on housing, a shift from subsidising the supply of housing to the demand for housing, a shift in emphasis in policy from 'quantity' to 'quality', involving greater expenditure on improvement work, and in addition policies to decentralise, deregulate and privatise housing giving an increasing role to the markets in housing finance and housing provision. Evidence can be found of all these changes in the four countries, and although the different policies have been initiated at different times, most of them have appeared to have had some effect on housing investment. To measure the extent and/or the

nature of the effects in a comparative perspective is a considerable task. It may be possible to note that a particular policy had a greater effect in one country at one particular time than in another, but it is not possible to conclude that policy effects have 'overall' been stronger in any one country.

Most of the policy shifts that have taken place, listed above, have tended to have a negative effect on housing investment. For example, reducing supply side subsidies and increasing demand side payments led in many countries to a direct cut in dwelling construction. Cuts to public expenditure were also focused on capital investment as housing allowance budgets increased. There was, however, evidence in many countries that a shift from subsidising construction to subsidising improvement work actually increased GFCF in housing in some years, particularly in the mid to late 1970s. In addition it was shown that increasing the role of the markets in housing provision and financing has in some countries increased the levels of private investment in housing. This has coincided in most cases with an increasing emphasis on the owner occupied sector.

Some similarities can also be identified in the causes of these housing policy shifts in France, Germany, the Netherlands and the UK. Some causes were discussed in section 5.3 including the reasons for the shifts in emphasis in housing policy in the 1970s. In addition the state of the economy can be seen to have had a considerable influence in contributing to changing housing policies. The oil crises in the 1970s and ensuing economic recession in many countries increased the necessity for public expenditure cuts in particular. The nature of the private housing market has also influenced government policy intervention. Policies that have affected investment are often initiated in response to, for example, housing market 'booms' or 'slumps'. Evidence can be found particularly in the UK and in the Netherlands. While the statistical analysis of the economic growth variable in chapter four did not show a consistently significant relationship with housing investment, the evidence presented in this chapter points to specific economic conditions and policies have had an important effect on housing investment during this period.

In addition other 'external factors' have also caused housing policy changes within countries which have affected investment, and played a particularly prominent role in Germany at the end of the 1980s, when the country was transformed by reunification.

While specific policies and government interventions have clearly influenced housing investment levels *within* countries it is more difficult to assert that they are responsible for overall differences *between* countries. In making comparisons between countries the overall forms of housing policies and the systems that form a framework for their implementation

might be expected to have a greater effect. It was noted that similar trends in housing policies have been present in all four countries over the period 1970-1992, but they do not appear to be able to account for differences between countries. Considering the effects of the structures in housing systems to account for differences between countries, links in with the earlier discussion of supplementary and comprehensive housing policies, and differences in welfare regime types. This discussion outlined differences in forms of government intervention between countries in terms of the way systems of provision were established and the areas to which that intervention was targeted. It was noted that some analysis of this will take place in later chapters.

However, it will be useful to examine here the extent to which housing policies and subsidies have been directed to either supply-side or demand-side objectives. Those countries with an emphasis on production might be expected to have higher levels of housing investment. The change in emphasis since 1970 from supply-side to demand-side subsidies, discussed above, has been apparent in all countries. However, differences *between* countries were not explored. There are significant differences in the relative importance of subsidies to housing demand and subsidies to housing supply in the four countries. This is illustrated in Table 5.2. Adapted from a study by Papa (1992), this compares direct government expenditure and forgone fiscal income associated with housing in France, Germany, the Netherlands and the UK. Given the differences between countries in ways of defining housing expenditure, in identifying subsidies and measuring the value of housing assistance, comparisons of the levels of housing expenditures, and the composition of this expenditure between countries, is difficult. The data in Table 5.2 serves as an estimation of these measures. Direct budgetary costs of construction and improvement work are included as property subsidies. The full costs to central and local government of the various sorts of individual subsidies are included as housing allowances. Whilst property subsidies are clearly supply-side measures and housing allowances are demand-side measures, the status of 'Forgone fiscal income' in Table 5.2 is less clear. For England this is exclusively benefits for owner-occupiers and could be classified as demand side subsidisation. However, in the other countries some of the tax reliefs go to housing developers and thus the forgone fiscal income is partly supply-side support.

While the problems of definition make comparisons difficult, the data does suggest that France, Germany and the Netherlands have all had considerably more emphasis on property subsidies than the UK. Property subsidies in 1988 were highest in the Netherlands, which is in line with the earlier suggestion that social democratic regime types (such as the Netherlands), have greater government intervention in the production than in the consumption of housing.

**Table 5.2: Types of subsidy, relative significance:
Netherlands, Germany, France and England, 1988**

	Direct government expenditure and forgone fiscal income on housing, percentages			
	Property subsidies	Housing allowances	Forgone fiscal income	Total
Netherlands	54	11.3	34.7	100
Germany	24	22.7	53.3	100
France	34.1	24.2	41.7	100
England	13	42	45	100

Source: from Oxley and Smith (1996, p50)

However, significant changes have been made in the Netherlands since 1988 with respect to property subsidies which are likely to have reduced the high level of production subsidies (see discussion in chapter six). Earlier discussion of regime types suggested that corporatist and liberal states put greater emphasis on intervention in the consumption of housing. Using the earlier characterisation of regime types, the data in Table 5.2 suggests that in 1988 this would appear to be the case for France, Germany and the UK, especially in relation to the Netherlands. However, it is also clear from Table 5.2 that those countries with the highest levels of housing investment, France and Germany, do not necessarily have the greatest percentage of subsidies targeted to production. The reasons for their higher investment rate might, therefore, be related to other factors within their housing systems. It was suggested earlier that these countries, which may be classified as having comprehensive policies or corporatist welfare states, might because of their differing structures of provision attract investment from alternative and additional sources relative to the other countries.

Structural differences and alternative forms of intervention used, including the mix between public and private enterprises and financing, will be compared between countries more thoroughly in relation to housing investment in chapters six and seven. Further conclusions in relation to the significance of comprehensive and supplementary forms of housing policy will, therefore, be made in these chapters.

5.5 Conclusions

The aim of this chapter was to investigate whether government action and housing policies in particular, can provide some explanation for housing investment outcomes within countries and for differences between countries. The aim was to discover whether 'government' and 'policy' might be determinants of housing investment, along with some of the economic and demographic factors examined in chapter four. Policy factors might then be argued to account for part of the 'residual' element left over in the statistical analysis.

In section 5.4 government policies and housing investment were examined in detail for France, Germany, the Netherlands and the UK. Evidence was found, within each country, which suggested that housing policy changes had had some effect on housing investment levels. However, it is more difficult to assert that housing policy changes can explain differences between countries. At any one particular time it may be that a policy change is taken in a country that increases, or decreases its housing investment level relative to another country. This may well have been the case at some points during the period that has been investigated. However, the analysis of the four countries has shown both increases and decreases in

investment at different times during the period considered. It was also noted that many of the policy changes that have been initiated during this time have been, in some form, common to most of the countries. Therefore it may be the case that some of differences are connected more to the timing of particular policies in each country, rather than the actual nature and effects of policies. In particular it is important to note that policies do not have an isolated effect on housing investment. Policies arise out of a number of different and unique circumstances and their effects will also be partly determined by these and other historical circumstances. Policies and their effects must therefore be seen in the context in which they are implemented. This analysis has shown, therefore, that the effects of policy and policy changes on housing investment appear to be more significant over time *within* countries, than in explaining differences *between* countries.

Some explanations for differences in housing investment levels between countries may be found in the development of the welfare state in each country and consequently the way that housing policies and programmes have been formulated over time. The political ideologies in each country and the nature and timing of industrialisation were shown earlier in this chapter to play a role in determining the development of the welfare state, and in turn the development of the welfare provision of housing in each country. Differences were shown between housing policies that are 'supplementary' or 'comprehensive' in their approach, and between the welfare state regime types in the four countries. It was also asserted that there may be some evidence for countries with 'comprehensive' (or corporatist/ social democratic) housing systems having more potential for high levels of investment than those with 'supplementary' policies (or liberal welfare regime types). This is because the number of potential sources of finance for housing investment tend to be greater with comprehensive type policies, or in corporatist states, because more agents, institutions and organisations share responsibility for provision. Where a government does not establish a wide framework for investing in housing, say, but takes on the responsibility itself, where and when it is thought necessary, the whole housing provision system suffers if for any reason, such as budgetary difficulties, the government is forced to withdraw its financial support. Some of the differences in the levels of investment between the UK and the three other countries may be explained, in part, by this fact. This type of analysis is focused more on the systems and structures of provision to explain housing investment, than it is on policy decisions. These issues will be examined in the two following chapters to investigate their specific effects on housing investment outcomes in the social housing sector.

To summarise, it is highly likely according to a number of theoretical perspectives that government will have an influence on housing investment. The evidence from the four countries tends to support this proposition. This analysis has shown that the 'government effect' can take several forms and can, for example, be primarily a consequence of:

- a) the government's attitude towards - or use of - the welfare state and/or the fundamental differences in the nature of the welfare state between countries;
- b) differences in overall types of housing policies, e.g. between 'comprehensive' or 'supplementary' policies;
- c) specific housing policy initiatives or shifts resulting from differences in analysis of the housing situation, e.g. the shift from production to consumption, or from construction to rehabilitation;
- d) economic policy measures, e.g. where reductions in public expenditure, for anti-inflation reasons, reduce housing production.

Although it is not possible to be conclusive concerning the extent of both government and policy effects on housing investment, it is clear from the analysis in this chapter that both of these factors can be described as further determinants of housing investment.

Chapter 6: Structures of social housing provision

6.1 Introduction

This chapter and the following chapter aim to investigate whether the structures of provision in systems of social housing have an effect on housing investment. In chapter two (section 2.4) it was noted that within any housing system, different institutional arrangements might provide some of the explanation for differences in housing investment levels. Chapters six and seven will examine whether the institutional arrangements for social housing provision in the four countries have an effect on housing investment levels. The structural form of housing provision is an additional factor which, together with broad national aggregates and policy factors, might provide a partial explanation for housing investment levels both within countries, and between countries. This chapter will briefly discuss the use of the social sector and social housing systems to analyse the effects of structures of provision on housing investment, discussing the reasons for focusing the analysis on social housing. After defining what is meant by 'social' housing this chapter will provide a structured description of the institutional arrangements of the social housing sectors in France, Germany, the Netherlands and the UK, placing an emphasis on finance and management structures. The descriptions will give an overview of the situation in the social housing sector in the early 1990s. The latest available data has been used for each country, although it has not always been possible to compare data from the same year in each country. The information in this chapter will be used for the analysis and discussion in chapter seven.

6.2 Redefining structures of housing provision

The structures of provision thesis and the value of this approach to make cross-national comparisons was introduced in chapter two. Work carried out by, among others Ball and Harloe, using the structures of housing provision thesis was cited as being relevant to this work. However, using Ball's definition of structures of housing provision as an "analytical framework to examine aspects of housing production" (Ball and Harloe, 1991, p3) as a basis for comparisons is difficult because it attempts to encompass so much within the housing development process. In relation to cross-national comparisons of more than one or two countries this could become an enormous task. To examine the structures of provision, even in just the social housing tenure, across the four countries being examined here is beyond the scope of this study. It would mean examining the forms, agents and institutions involved in housing provision and all the social relations and economic interrelations between them in four countries and would, if executed thoroughly according to Ball's criteria, be a study in itself. It

is clearly unrealistic to make such a comprehensive examination of the structures of social housing provision for this work.

The aim of this chapter and the following chapter is to focus an examination on those forms, agents and institutions (and social relations) that might be expected to have consequences for the determination of housing investment levels, and which can be (with a manageable degree of difficulty) compared across four countries. This will clearly require a 'modification' of Ball's structures of housing provision. While this might appear to be limiting the analysis it will nevertheless be beneficial to the study to maintain a focus of the most relevant and useful factors to examine in relation to housing investment.

This study has set out its approach to investigating social housing systems as an "examination of the institutional arrangements and the social relations between them". It will thus involve a consideration of the institutional arrangements surrounding social housing finance, its organisational and management structures, and its access and allocation procedures. The role of government in monitoring social housing bodies, influencing the financial arrangements for construction and improvement work, and in rent setting will be discussed. While it is acknowledged that regional and local differences from these systems may exist, particularly, for example, between the German Länder, the emphasis here is on national level differences between countries.

A structures of provision approach might also consider more details of the construction and house building industry and land and planning controls, however, these will not be examined here. The concentration for this analysis is on the institutional arrangements for attracting investment into the sector. It is acknowledged that other factors will effect investment incentives, but it is also necessary to establish some limits to maintain the research focus.

While this may not be strictly termed a structures of provision approach according to Ball's definition it is utilising and focusing on those factors within a 'structure of provision' that are most relevant to this study. This might be termed an adaptation of the former approach to examine specific institutional arrangements of social housing as they relate to this comparative study of housing investment. This investigation will still refer to the approach being adopted as a 'structures of provision' approach to avoid complicating the terminology throughout the thesis. However, it is acknowledged that the approach being adopted in the comparisons of social housing systems in this chapter and chapter seven is, in reality, only examining some parts of a 'structure of housing provision' according to Ball's definition.

6.3 Structures of provision, welfare state types and 'social' housing

Section 5.2.3 in chapter five discussed the classification of the four countries being examined according to their welfare state regime type. At the end of this section the idea was put forward that examining the nature of housing systems and how they differ according to welfare regime type, might hold some value for explaining differences in housing investment between countries. It was stated that differences in regime types will be clearly manifested in the structures of provision and institutional arrangements for housing in each country. Thus, to examine whether different welfare regime types might result in different levels of housing investment requires a detailed examination of the relevant 'structures of provision' in each country.

It is important to note that structures of provision are not being examined merely as a way of testing the effects of welfare state regime types on housing investment. An investigation of structures of provision can be useful in itself. However, it is apparent that in the investigation of housing investment determinants there are significant links between the classification of welfare state regime types and the analytical framework of the structures of housing provision thesis. To enlarge on this, a 'welfare state type' can in part be conceptualised according to its institutional arrangements for providing housing. This was discussed in chapter five with reference to the way in which welfare housing services developed over time to their current structures. The way in which the four countries have been classified into welfare regime types in chapter five is partly on the basis of their institutional arrangements for providing social housing. These include: the public/private mix of social housing providers, the degree of autonomy of social housing organisations and/or the degree to which they are regulated and controlled by government, the organisation of finance and credit institutions and their effects on the financing and subsidising of social housing, whether government support favours public housing or owner occupied housing, what role social housing plays in the housing system, (i.e. is it universal, a safety net, targeted to certain income groups etc.). Some of these characteristics of different welfare regime types are examined in more detail in this chapter in an analysis of social housing systems. This chapter serves (in many ways) as a link between the welfare state and government policy approach taken in chapter five and the structures of provision approach taken in chapter seven. It illustrates the linkage and integrated nature of the approaches and their respective value.

An analysis of the structures of housing provision is strongly linked to the analysis of government and policy effects on housing investment, discussed in the previous chapter. The discussion of the development of the welfare state in France, Germany, the Netherlands and

the UK illustrated significant consequences for the respective development of housing systems and institutional arrangements in these countries. In particular the current forms of housing policies and systems of provision were linked to differences in levels of government control, commitment and consensus in housing. The role of the state in housing and its level of control and influence in the production process were all shown to be reflected in the way the different systems had developed, and in the current forms of provision. It will be seen that the way that the welfare provision of housing developed in each country has affected the establishment of the varied structures of social housing provision.

While chapter five examined the effects of specific housing policies on housing investment, this chapter and chapter seven, will examine the broader social structures of housing provision, within which housing policies are implemented, and examine their effects on housing investment. While the analysis of policy effects and institutional effects have been investigated in separate chapters it is clear that strong links exist between the two areas particularly with respect to patterns of welfare state development. This illustrates the importance of the 'integrated' approach adopted in this research.

In applying the 'structures of provision thesis' (see chapter two, section 2.4) an analysis of the different institutional arrangements, forms of state intervention and the social relations between them is needed to gain an understanding of differences in housing systems. This analysis will also take account of changing welfare commitment to housing, which, as shown in the previous chapter, was particularly significant during the period 1970-1992. The structured descriptions of the social rented housing systems to be carried out in this chapter also take into account many of the stages in Ambrose's housing provision chain, which consisted of stages of promotion, investment, construction, allocation, and the ownership and management of housing (Ambrose, 1990, 1991).

The focus of this analysis is the social rented housing sector in each of the countries. The forms of provision in all housing sectors could provide explanations for differences in housing investment levels. There are, however, a number of reasons for a concentration on one sector, and the social housing sector in particular. Firstly, it is not practically possible in the scope of this research to examine the structures of provision of the whole housing system, for four countries. Indeed, to categorise and compare four housing systems in this way would be an almost impossible task, requiring substantial generalisations which might result in inadequate conclusions. There will therefore be considerable benefits from concentrating the investigation on one specific section of the housing system.

The social housing sector was also selected partly because of its historical links with the development of the welfare state in housing. The social housing sector has been seen, "as the main traditional welfare state means for providing low-rent housing to low-income households", and as an important "instrument of an interventionist welfare state" (Wollmann and Jaedicke, 1989, p82). The role of the state in the development of this sector and in its structures and forms of provision is, thus, particularly significant. Many of the changes that were discussed in chapter five, as a consequence of the changing government role, such as the switch from supply to demand side subsidies, from new production to rehabilitation and cuts to public housing expenditure, have had a significant impact on the social sector in particular.

Additionally, the social housing sector can provide a particularly useful comparison between the four European countries being examined. The social housing sectors in France, Germany, the Netherlands and the UK provide examples of very different structures of provision which could signify a cause for differences in housing investment. This diversity in social housing systems provides a good basis for comparing the effects of structures of provision on housing investment.

Several critics have argued that the distinction of a particular tenure is not a sufficient basis for undertaking comparative housing research (Ball et al, 1988; Barlow and Duncan, 1988; Ruonavaara, 1993; Kemeny, 1994; Barlow and Duncan, 1994). In 'The use and abuse of housing tenure' Barlow and Duncan (1988) question the usefulness of housing tenure because it provides little information about the promotion and use of housing and that the content of tenures in terms of legal definitions, varies widely across countries and historically. In a later publication they go on to say that basing comparisons on tenure "over-emphasises just one element of housing systems" (Barlow and Duncan, 1994, p32). Ruonavaara (1993) also notes that differences in housing tenure content in different countries makes "the cross-national comparison of housing tenures difficult" (ibid., p3). Ball et al (1988) argue for a greater awareness of the distinct structures of provision that are being examined "within apparently common tenures" (ibid., p30). The analysis of the social housing sectors which follows attempts to incorporate this latter approach. While this section of the research is centred around one 'housing tenure', the analysis is attempting to explore and illustrate the variations within the sector rather than trying to categorise a 'universal' social sector as having the same forms of provision in each country. Where more direct comparisons are made in the analysis in chapter seven, very careful qualification is made of what is actually being compared, to minimise the problems.

6.4 What is social housing?

Social housing is usually perceived to be rented housing. Social housing has been defined as:

- a) "Housing whose construction and in consequence rents are subsidised from public funds" (Emms, 1990, p.1);
- b) Being differentiated from other forms of housing in three major respects:
 - i. It is provided by landlords at a price which is not principally determined by considerations of profit,
 - ii. It is administratively allocated according to some concept of need,
 - iii. Political decision making has an important influence on the quantity, quality and terms of provision (Harloe, 1988).

The provision of social housing carries with it connotations of public subsidy to the supply of accommodation with such subsidy being intended to assist the less well off. Thus, social housing may be designed specifically for lower income groups and be provided with the aid of state assistance. Its provision is one way of recognising that there will be some households in a market system who cannot afford housing of some sort of minimum standard. Social housing usually has minimum standards attached to its provision. Social housing may also be referred to as 'non-profit housing'. This is on the understanding that it is outside of the market sector and no surpluses for commercial distribution should be made from its operation. However, in some countries social housing can also be provided through housing companies which are entitled to make limited profits, so that the idea of social housing being entirely non-profit making is not accurate.

The state may also subsidise directly the provision of owner-occupied housing, in some cases intending the subsidised dwellings to be for lower income households. This has been the case, for example, in France and the Netherlands. Some might consider such accommodation to be social owner-occupied housing. The emphasis in this chapter will be on the structure of the social rented housing systems. However, the later analysis which compares social housing investment, will also take account of investment into owner-occupied social housing.

The character of social housing in terms of its target groups, access, allocation, financing arrangements, and construction varies to such a great extent that a universal definition is difficult to apply. Problems are encountered particularly when attempts are made to distinguish between social and private renting. Criticisms have been made of studies that have attempted to generalise a distinction between private and social rented housing for the purpose of comparative research (see in particular Kemeny, 1995). The detailed analysis in this chapter is concerned mainly with subsidised rented housing which is allocated with reference to need.

This housing is supplied in Europe by a variety of landlords including municipalities, housing associations, other non-profit organisations and commercial enterprises. In the countries being examined significant overlaps can be found between private and social rental sectors and difficulties of researching within this type of distinction are acknowledged.

The rest of this chapter will examine the structures of provision, according to the definition given above, in the social housing sectors of France, Germany, the Netherlands and the UK respectively. While this work is concentrating on the period 1970-1992, some of the information provided below goes beyond 1992 and reports on more recent changes in social housing. This is largely because significant changes have taken place in some countries after 1992. Reporting these more recent changes can put much of the other material into context, and while perhaps not relating specifically to the hypothesis being examined, is in itself of value.

6.5 Social housing in France

The social housing sector in France includes both public and private bodies. Most social housing is within the HLM movement and can be constructed for rent and owner occupation (the subsidised financing which is available for ownership will not be explored here). Together with the 'conventional' social rented sector, more recently an intermediate rented sector has emerged. This sector is also subsidised and caters for individuals who have slightly higher incomes than those in conventional social housing but cannot afford to rent in the private sector.

6.5.1 Social housing provision and management

About 90 per cent of social housing in France is built and operated by Habitations à Loyer Modéré (HLM) (Housing at moderate rents) organisations. The main role of the HLM organisations is to construct and manage rented housing and to provide dwellings for social ownership. There are about 1,000 HLM institutions with a total stock in 1992 of 4.6 million dwellings. Approximately 3.3 million of these have been constructed or financed for rent and the remaining 1.3 million for social ownership. Within the HLM movement there are both public and private providers of social housing. These can be further sub-divided into five main groups with various responsibilities for managing or constructing social housing, either for rent or ownership.

Offices Publics d'HLM (OPHLMs) are non-profit organisations which are sponsored by local authorities at the municipality or département level. The main objective of the offices d'HLM is the construction and management of rented housing aimed at individuals on low incomes, and as a secondary role the promotion of social ownership. They also carry out rehabilitation work on existing properties and other urban development projects. The average size of their stock is about 6,000 units. Although the OPHLMs were originally the most important providers of social housing, since the early 1980s their share of new construction has fallen considerably.

Offices Publics d'Aménagement et de Construction (OPACs) were created in 1973 and operate under a mixture of private and public law. Like the offices d'HLM they are public bodies sponsored by a local authority promoting social housing, and the two organisations work closely together. The size of their stocks is generally much greater than the offices d'HLM and averages about 17,000 units. Their activities also tend to be much wider than those of the OPHLMs and they have the power to buy land and develop directly.

Sociétés Anonymes d'HLM have legal status under legislation that generally applies to private joint stock companies and are permitted to make limited profits. They are usually sponsored by private sector firms, by chambers of commerce and industry, by the agents of the '1 per cent patronal' scheme (of which they may be a sub-company; this scheme is explained in section 6.5.2), by the bodies who allocate family housing allowances, and sometimes by public enterprises and local authorities, with the main aim of providing low-cost housing for their employees. They are entitled to public financial support and also make use of funds from the '1 per cent patronal' scheme. Their role is essentially in rented housing but they do also have some activities in social ownership. Since the 1977 financial reforms the sociétés anonymes have taken over as the main provider of social housing in France. In 1991 58 per cent of all new social housing starts were constructed by sociétés anonymes compared to 42 per cent for both offices publics (OPHLMs and OPACs).

Sociétés Anonymes de Crédit Immobilier (SACI) are subject to the same rules as the sociétés anonymes. Their main role is to provide loans (both subsidised and unsubsidised) for home ownership. The SACI are therefore subject to a banking law of 1984, which governs the operating rules of financial establishments.

Sociétés Anonymes Coopérative d'HLM are subject to private company law and laws applying to co-operative societies, but also operate as non-profit institutions under regulation from the HLM movement. Originally co-operatives played a substantial role in social housing provision

but, in spite of an increase in the scope of their activities in 1983, many co-operatives have been dissolved.

HLM institutions are managed by a council consisting of members appointed by the département's préfet and other organisations. The presence of members of parliament on these councils can result in considerable political influence over HLM activities. The HLMs co-operate closely at the regional level and are united nationally in the Union Nationale des Fédérations d'Organismes d'HLM (UNFOHLM). This umbrella organisation is well organised and can have considerable influence on government housing policy.

Around 10 per cent of French social housing is run by Sociétés d'Économie Mixte (SEMs). These are joint ventures with funding partly from the private sector, but they also have access to loans only usually available to HLM organisations. SEMs are created under private company law and funded to a large extent by the state and are supported by the Caisse des Dépôts et Consignations (see section 6.5.2) or local authorities.

Central government's representative at the département level, the préfet, plays a supervisory role with respect to the HLM organisations. The central government has issued a number of directives to control HLM activity, although its chief influence is its power to grant subsidies and therefore influence the amount of new building.

The main criterion for access to French social housing is income. Income must be below a set level. Prospective tenants are then given 'entitlement' or the 'right of entry' to social housing. Whether a dwelling is actually allocated and subsequently taken up will depend upon the size of the stock in the surrounding area and the extent to which there are more urgent cases on an existing waiting list. Priority would be given, for example, to individuals living in poor conditions, and the homeless.

Allocations to social housing are decided by an 'allocations board' within each HLM organisation. This is made up of representatives from the local authorities, local employers, the local mayor, the préfet and other bodies involved in social housing. Each of these will have some percentage of nomination rights for specific dwellings and buildings depending on the financial contribution they have made to build them. The préfet has responsibility for ensuring that a proportion of dwellings are available for the homeless and households living in poor conditions.

To try to avoid concentrations of lower income households in some areas a new law was introduced in 1991, 'La Loi d'orientation pour la Ville'. To achieve a better balance of dwelling

quality and dwelling type this law stipulates that any urban area with more than 350,000 inhabitants having less than 20 per cent social housing must pay, in effect, a penalty tax. The taxes are paid annually to sections in the local authorities. This money is then allocated, under the direction of the préfet, to organisations involved in the purchase of land for, and the construction of, social housing (HLM Aujourd'hui, 1991, pp.59-61).

Further pressure has been brought to bear on HLMs by the introduction in 1990 of the right to housing law, 'Droit au Logement'. This aims to give every French citizen the right to a dwelling and, although there are no definite requirements for the HLMs to act, it is expected that the allocations committees will respond to the law.

6.5.2 Financing and subsidies for social housing

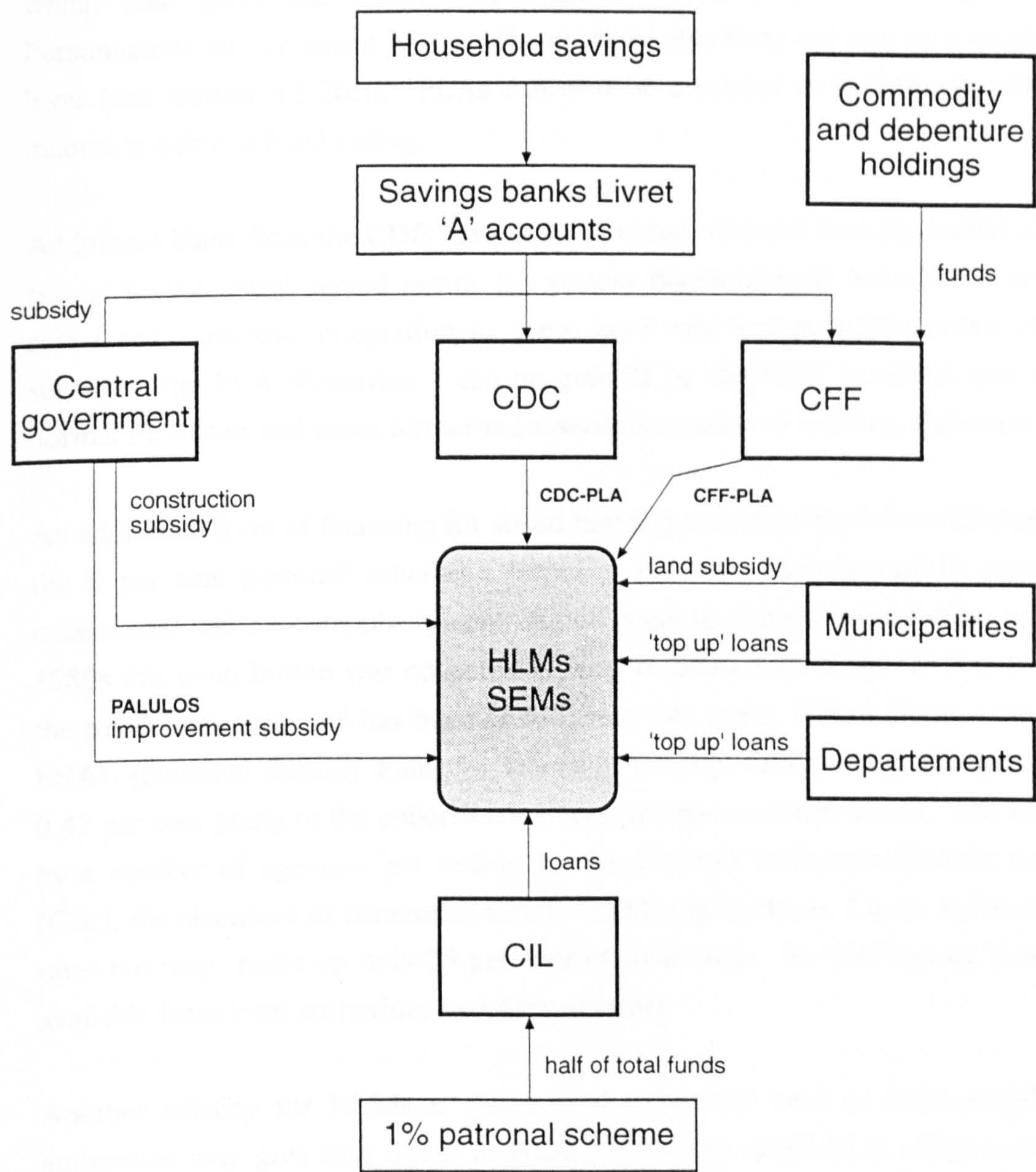
a) Construction of social rented dwellings

Social housing in France is financed from a number of different sources. Major changes, which resulted in the current system of finance, were introduced in 1977. These reforms created subsidised loans to finance social rented housing construction, the Prêts Locatifs Aidés (PLAs). The PLAs constitute the largest proportion of funding for new construction. Several other sources are also used to supplement these loans. An explanation of the different financing channels is given in Figure 6.1.

The largest part of social housing finance for new construction comes from the Caisse des Dépôts et Consignations (CDC). This is a public funding agency for social housing which is financed through Savings Banks holding households' savings in 'Livret A' accounts. The CDC grants 'PLA' loans to HLM and SEM organisations over a 35 year period. The central government provides a construction subsidy to the borrower which reduces the repayments on the PLA loan. The proportion of total construction costs that the PLA will cover depends upon the organisation carrying out the construction work, but will usually vary between 55 per cent and 95 per cent. To cover total costs various other loans are therefore required to top up PLA loans and government subsidies.

Further PLA loans can be granted by the Crédit Foncier France (CFF). Each loan is drawn from commodity or debenture holdings and a government subsidy which is paid directly to the CFF. The conditions attached are slightly different to the CDC-PLA loans. The builder or developer must cover at least 25 per cent of the initial costs of construction and the CFF-PLA must not exceed 65 per cent of a set development price. The loan may be at a fixed rate for 25 years or a variable rate for 30 years. These loans are awarded to private individuals as well as HLM institutions.

Figure 6.1: Social Housing Finance System, France



The granting of PLA loans, and their respective government subsidies, is subject to certain conditions including the signing of a contract between the developer and the government, which then gives the tenants the right to claim personal housing allowances, Aide Personnalisée au Logement (APL). The contract also fixes the rent at a maximum authorised level (see section 6.5.2(e)). PLAs can also be awarded to individuals provided that their income is below a fixed ceiling.

Additional loans from the CDC have been awarded to social housing bodies since 1990 to aid access to the social rented sector for certain disadvantaged households and to encourage social and economic integration in some inner city and suburban areas. A supplementary subsidy - the PLA d'insertion - can be granted by the CDC provided that conditions for a normal PLA loan and some further requirements relating to incomes and costs are met.

An additional form of financing for social housing construction that supplements PLA loans is the '1 per cent patronal' scheme. Companies having a minimum of 10 workers (with some exceptions) make a compulsory contribution equal to one percent of gross wages. Before the 1980s this contribution was collected entirely to finance building. However, since the 1980s the total funds collected has been divided into two parts, with 0.53 per cent allocated to the FNAL (National Subsidy Fund for Housing) to help with housing allowance costs and only 0.47 per cent going to the collection agencies to finance construction. The funds are collected by a number of agencies but mainly by the Comités Interprofessionnels pour le Logement (CIL), the chambers of commerce and by HLM organisations. Loans are available at very low rates but may make up only 25 per cent of total costs. Further top up loans are sometimes available from local authorities and départements.

Another subsidy for HLMs is given in the form of land to build social housing. Local authorities may give land direct to HLMs, or where an HLM is obliged to buy land that is above a set limit for a particular area, a one-off subsidy is granted. Part of this will be awarded by the central government and part by the local authority.

The proportion of subsidy received from each source to finance social housing construction is likely to vary with each development. It may depend to a large extent on the quantity of funds available to the CDC from the Livret A savings accounts. The low interest rate of 4 to 5 per cent attached to these savings means that households will often move their savings around if they can get a better return from other sources. This has caused problems as resources available from Livret A fell, due to a reduction in savings, by between thirty four and fifty two million francs between 1989 and 1992. However, at the same time the CDC has actually been

able to increase its total resources available for social housing finance by drawing on other reserves.

b) Construction of dwellings for medium income renting

Organisations can qualify for loans to construct dwellings in the 'intermediate rented sector'. This sector aims to provide dwellings for those individuals whose incomes exceed the qualifying limit for social rented housing, but who still have difficulty in affording a rented property in the private sector. These loans, the Prêts Locatifs Intermédiaires (PLIs), are awarded to HLM and SEM organisations by the CDC, or to private individuals by the CFF. Dwellings that are financed by PLI loans must be let for at least nine years on the conditions that the rents do not exceed a given level and that tenants' incomes are not above a set ceiling.

c) Improvement subsidies for social housing

For the improvement of social rented dwellings, social organisations and individuals may qualify for a government subsidy - Prime à l'Amélioration de Logements à Usage Locatif et à Occupation Sociale (PALULOS). It is available for three main areas of improvement work:

- for dwellings older than 15 years to be brought up to the 'normal minimum standard of habitation'
- to improve efficiency in energy provision, and
- other improvement work which will extend the life of a dwelling.

The granting of PALULOS is subject, in a similar way to PLA loans, to the signing of a contract between the state and lessor which establishes the right of tenants to receive APL. The amount of subsidy awarded is limited to 20 per cent of the total cost of improvement work, with a limit for the 'total cost' being set at FF 85,000 per dwelling (this percentage is sometimes increased to 30 or 40 per cent in special circumstances). This government subsidy is given in instalments over the duration of the improvement work.

An organisation in receipt of a PALULOS subsidy also has the right to receive a CDC-PLA loan for improvement work. The same conditions apply to this as with other CDC-PLA loans but they are usually limited to between ten and fifteen years, and may cover up to 50 per cent of construction costs.

A second subsidy the 'aide à l'amélioration de la qualité de service', has been available to the same social housing organisations since 1988. This is a much smaller subsidy (with maximum payments of FF 3,500) aimed at improving the living conditions for those in social dwellings.

d) Guarantees

When a social organisation qualifies for a subsidised loan it is contracted into a guarantee system. This operates in the form of an 'insurance scheme' to cover the HLMs if they cannot meet all costs. The département and the HLM sign a contract under which the département accepts responsibility on behalf of the HLM if it defaults on payments. In return the HLM must pay regular premiums. These premiums are paid to the Caisse de Garantie du Logement Social (CGLS) - social housing guarantee bank, which is managed by the CDC under the control of an administrative council. The insurance scheme covers PLAs, PLA d'insertion and PALULOS loans and the CGLS may also award one-off short term loans or grants, with government aid, to HLMs in particular difficulty. The amount of the HLM contribution is a fixed percentage of its loan commitment, but does vary between the types of organisations.

e) Rents: setting and increases

Each HLM development is treated as an individual cost centre with no opportunity to cross-subsidise rents. Each project will have its initial rent determined individually. This will be calculated according to a number of factors, the main one being the cost of financing for the project. Rents for specific properties can also be determined according to a 'corrected' surface area which takes account of the size and the levels of amenities in a dwelling. The final decision on rent setting is left to the discretion of the HLM organisation, but this must still fall within government set minimum and maximum levels. The government limits are reviewed annually and are adjusted by the current construction costs index. Because of the emphasis on the cost of financing in the calculation of rents, there is little correlation between the rent and the quality of the dwelling. In many areas, and particularly in Paris and other large cities, this has led to large rent differences between similar housing projects. Because of the desire of HLM bodies to select tenants on incomes high enough to support high rents, and with the demand for quality dwellings exceeding supply, tenant selection is a difficult process for HLMs and individuals on lower incomes can find it hard to secure accommodation.

Regulations for rent increases in the social sector have altered frequently. The main regulation laid down in the Code of Construction, is that increases, which can be made every six months, must not exceed 10 per cent of the total rent. However, the government does still set an average guide-line for rent increases which is closely related to the rate of inflation (this is separate to its guide-line on initial rents mentioned above), and tries to ensure that the HLM organisations adhere to their social vocation. All rent increases are initially referred to the préfet, who has the power to refuse any increase which is considered unreasonable.

Recent trends in HLM rent policies, particularly the steepness of rent increases and the sharp differences between rents, have meant that this issue has become one of considerable concern.

The government has set as a priority objective for HLM organisations the rationalisation of rents (French Housing Ministry, 1993).

6.5.3 Evaluation

Many of the problems that are now facing the social rented stock in France are common both to other sectors, and to other European countries. Several changes that have come about are due to the deregulation of finance and its effect on housing (Lefebvre, 1992) in particular the switch from bricks and mortar subsidies to housing allowances (discussed in chapter five).

The social rented sector is facing increasing pressures due to the effects of problems in other housing sectors. For example, while home ownership became increasingly popular in France throughout the 1980s access for those on low incomes has become more and more difficult. At the same time a recent sharp decline in the private rented sector, which has reduced supply and increased rents, has also forced many households on low incomes to rely on the social rented sector for accommodation.

While investment levels have been maintained in the sector, it has clearly not been enough to accommodate the increases in need that have been experienced. One solution is to find ways of increasing new construction in the sector. In the meantime, as a way of keeping the stock available for lower income groups, the income ceilings for right of entry to the stock have not been adjusted upwards for the past few years (Lefebvre, 1992). This has led to further problems of segregation and ghettoisation in some parts of the stock, and increasing management problems for the organisations who are now expected to take on less privileged households.

HLM organisations are generally facing increasing financial difficulties and many are beginning to encourage sales of part of their stock to help with other costs. This has only recently begun to take place in France and is as yet very limited. Sales are co-ordinated by the landlord organisation, but strongly monitored by local government and the préfet (Ghékiere, 1993). There are strict regulations concerning those able to buy their rented homes and on what terms. There is as yet no 'right to buy' as is the case in the UK.

6.6 Social housing in Germany

Social housing in Germany is a function of a method of financing housing and not of specific types of landlords. Since 1950 finance and subsidies for the provision of social housing have

been available to any registered institution, private individual, company or institutional investor who agrees to adhere to a number of conditions. These concern rent levels and the income levels of the tenants they accept. There is thus an overlap between 'private' and 'social' landlords providing social housing. The main incentive that encourages 'private' landlords to enter into social housing provision is that they are permitted to make profits. 'Social' landlords provided, until 1990, non-profit housing and operated under stricter regulations than private landlords. Since 1990 the regulations concerning non-profit housing have undergone a number of changes and these will be discussed below. Subsidies and loans are available for both rented and owner occupied social housing. However, the concentration here will be on the social rental sector.

A main feature of the social housing system is that the provisions are temporary in nature. Conditions surrounding the provision of social housing apply only until public loans are redeemed. As a result of this, since the mid-1980s large sections of the social housing stock have been lost to the free sector as these loans are paid off. With only limited new social house building to replace these units, the sector is beginning to experience serious shortages.

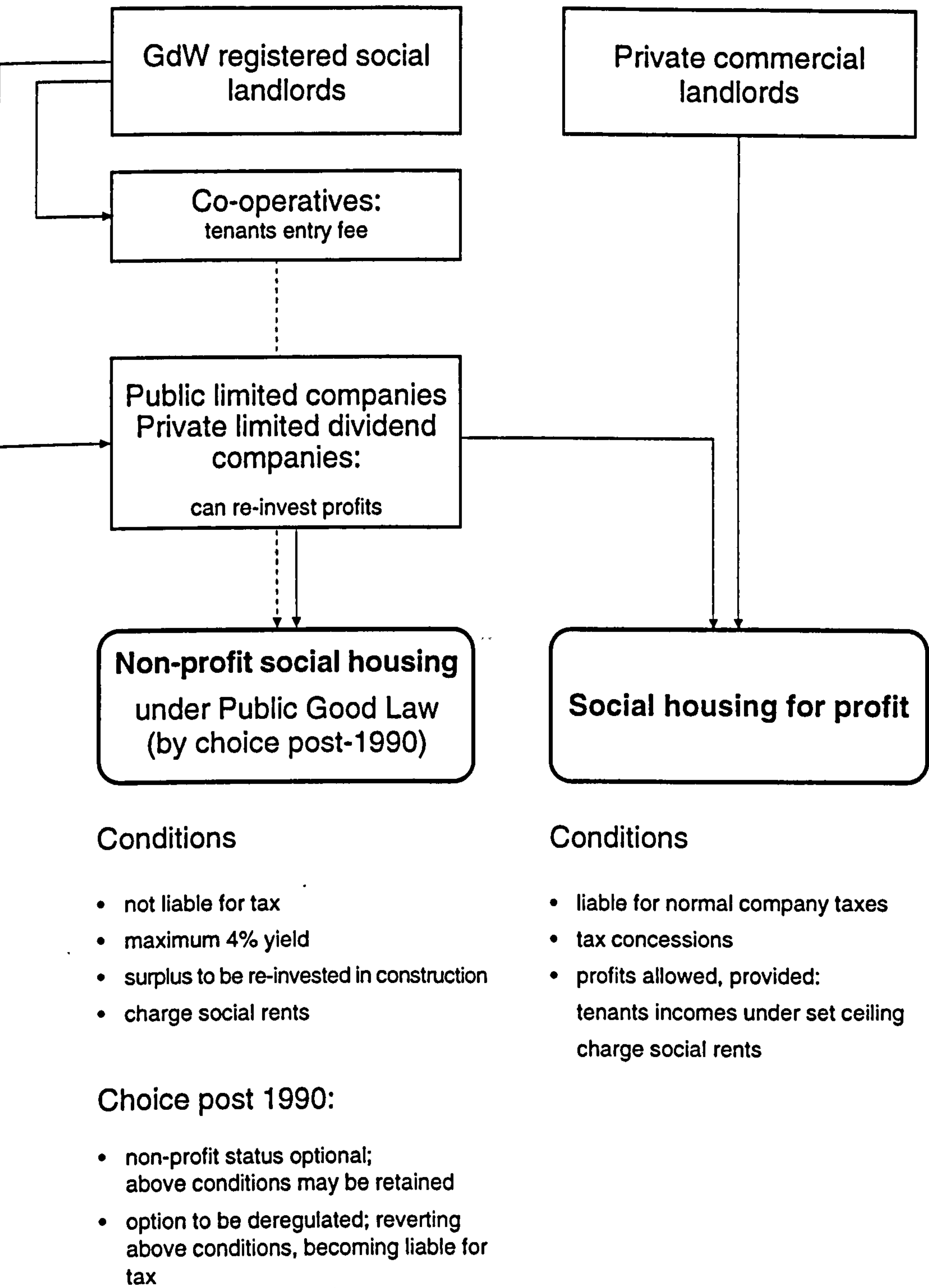
6.6.1 Social housing provision and management

The overlaps in the provision of social housing in Germany make classification of different landlord organisations difficult, because each landlord does not necessarily provide one specific type of housing. The basic structures are set out in Figure 6.2.

The private landlords who provide social housing are mainly large institutions and private individuals who all make profits on their investments. This form of social housing provision was undertaken in post-war Germany to encourage increased construction in the sector without putting too great a burden on government finances. However, the profits of these landlords will determine future expansion in this part of the social rented sector, and its growth is therefore tied, more so than in other countries, to both housing market conditions and the state of the economy. This can lead to a situation where housing managers, aiming to optimise operating conditions, are necessarily less concerned with ideas of social responsibility towards tenants.

In 1993 private landlords controlled just under one million dwellings in the social sector. Loans and subsidies are received directly from the government for the construction of dwellings. Private landlords are liable to pay normal company taxes, but the provision of social housing can enable them to take advantage of certain tax concessions. Profits are permitted

Figure 6.2: Structure of Social Housing Landlords, Germany



provided that landlords accept tenants whose incomes are under a specified level, and social rents are charged.

All non-profit housing provided prior to 1990 by social landlords was subject to a Law governing 'Housing for the Public Good' (Wohnungsgemeinnützigkeitgesetz). This law decreed that social landlords were exempt from corporate, trade and capital taxes as a compensation for adhering to the following conditions for supplying social housing:

- a maximum of four per cent yield on investment;
- the building and managing of housing was to be social landlord's sole objective, and all other activities were prohibited;
- a commitment that any surpluses above a four percent return would be reinvested in housing;
- rents would be set according to a 'social-cost rent principle';
- social landlords would be committed to a continuing building programme;
- and they would provide for tenants on moderate incomes (within set limits) and would necessarily limit the size of the dwellings.

(Duvigneau and Schönefeldt, 1989; Power, 1993; Norton and Novy, 1991).

Social landlords that adhere to these regulations are Genossenschaften (co-operative associations) or Wohnungsbaugesellschaften (limited liability housing companies). These are registered with the Gesamtverband der Wohnungswirtschaft (GdW) which is the umbrella organisation for non-profit landlords. The GdW acts as a lobby and advice centre for the movement, with a regional and federal network.

In 1992 there were 1,827 member organisations in the GdW controlling a total stock of over 3.3 million dwellings. However, not all of these were in the social rented sector. Some of the non-profit organisations have a further role as builders and developers of owner-occupied housing and also manage housing for third parties. These landlords may additionally play a role in providing social housing for profit, so that all of their activities are not bound by the 'Public Good' Law.

Co-operative associations make up around two thirds of the GdW membership (1,174 associations in 1992) but control only about 30 per cent of the registered stock; i.e.. just over one million dwellings. They are private organisations backed by, for example, churches, trade unions and charities and they have strong local links which influence tenant selection. The co-operative movement is based on collective property and members are owners and tenants at the same time. Tenants are required to pay a proportion of initial costs of the dwelling and therefore tend to be fairly high income earners.

Housing companies made up a much smaller part of the GdW membership (622 in 1992), yet they managed a much larger proportion of the social rented stock. They are controlled by municipalities, trade unions and national employers such as the post office, railways and churches. A lot of the companies are very small. However, a small number of them are responsible for large stocks of dwellings. For example, the fifty biggest companies have stocks of approximately 20,000 units each. These companies are usually ones where big city local authorities or Länder governments have a controlling stake.

During the 1980s total dwelling construction in the social sector fell as it appeared that the current housing supply was saturating the market. There were also arguments that social housing was no longer needed and that there were many inefficiencies in its provision. These arguments were reinforced when scandal erupted over Neue Heimat, the largest social housing company in Germany.

Neue Heimat was a housing company owned by the German Trade Union Congress. It managed over 300,000 social dwellings. However, it abused its power by making over ambitious deals and speculating in risky investments. Eventually it emerged that the company had huge financial problems which had left it on the verge of bankruptcy. It was too late for the Trade Union Congress to undo mistakes and finally most of the dwellings were taken over by new housing companies formed by the Länder.

This crisis had a huge effect on German housing organisations, and gave the government the impetus to change the social housing sector, even though Neue Heimat was by no means representative of other companies. In 1990 an Act came into effect that repealed the 'Public Good' Law. This meant that social housing companies would be allowed to diversify their activities, they would be liable to the same taxes as private landlords and profit-making companies but would also receive the same tax privileges (Power, 1993).

It is expected that many co-operatives will voluntarily maintain the conditions of the 'Public Good' Law and continue to operate on a non-profit basis. Many organisations have welcomed the changes as they removed many 'excessive restrictions' in social housing (Duvigneau and Schönefeldt, 1989, p138). However, there are also fears that the new freedom will lead to increasing rents in the sector, to properties being aimed at higher income earners to increase profits, and to declining levels of social housing provision. Indeed the abolition of the 'Public Good' Law has been quoted as being the "greatest wrong decision since the war" (German Tenant Association, director H. Schlich from Frankfurter Rundschau, 21.1.89, in Norton and Novy, 1991, p32).

Municipalities play a vital role in the allocation of housing. Prospective tenants apply to the housing departments (Wohnungsamt) and receive a 'certificate of entitlement' to social housing if they have an income below a set limit. There are three types of certificates that tenants can apply for: an emergency certificate gives access to special reserved stock which has a higher level of subsidy for the landlord; a certificate for households with particularly low incomes gives access to social housing built before 1964 with lower rents; a normal certificate applies to the rest of the stock. Once a certificate of entitlement has been awarded, applicants will be housed according to the priority in each category.

Income is the main criterion for determining whether a household is in need of a social dwelling. Once an individual has a tenancy there are no further reviews of household income. This has led to considerable problems as tenants' incomes rise above the qualifying level, and they are still able to stay in the dwelling.

There was much debate in Germany about how to address this problem. With growing need for social housing, it seemed that the sector was not targeted to those in most need, and that the rate at which new requirements were being met from the existing stock was very low. In response to this situation the Bundestag introduced a law at the end of 1981 which entitled the Länder to levy an additional tax on certain households. This tax, the 'Fehlbelegungsabgabe', must be paid by tenants if their incomes rise to 20 per cent above the set limit. The setting of the limits and the operation of the system vary between the Länder. The revenue received from this tax is put back into new social housing construction (Hills, et al, 1990, p155).

Even after some years of operation the additional tax does not seem to have been very effective at providing an incentive for high income tenants to move on. Problems of allocation and access are therefore continuing.

6.6.2 Financing and subsidies for social housing

a) Construction of social rented dwellings

There are three main subsidy paths (Förderungsweg) for the construction of social housing. Their principal aim is to reduce the tenants' rents to below the 'cost rent', and the size of the loan will therefore be different for each development project.

The first subsidy path ('Erster Förderungsweg') is for the construction of publicly assisted social housing reserved for specific sections of the population. This subsidy is awarded on the condition that minimum quality standards are met in building. A dwelling must also be below

a maximum quality standard to be allocated to a social tenant. Tenants must have incomes under a set ceiling.

The second subsidy path ('Zweiter Förderungsweg') leads to the construction of dwellings which are slightly above the level of those constructed under the first subsidy path. They are allocated to households whose incomes are up to 40 per cent above the social income limit. They will have a higher rent attached to them and are therefore aimed at tenants who have higher incomes but cannot afford to rent in the free private sector.

Some Länder also offer a third subsidy path ('Dritte Förderungsweg'). This was introduced in 1986 so that Länder can grant further (usually short-term) subsidies for social housing construction with more flexible arrangements concerning rent setting and allocation, which are agreed between the Länder and the 'builder' when the subsidy is awarded (Hallett, 1993, p126).

The actual financial instruments used are set out below.

There are three forms of aid that are used for the 'Erster' and 'Zweiter Förderungsweg':

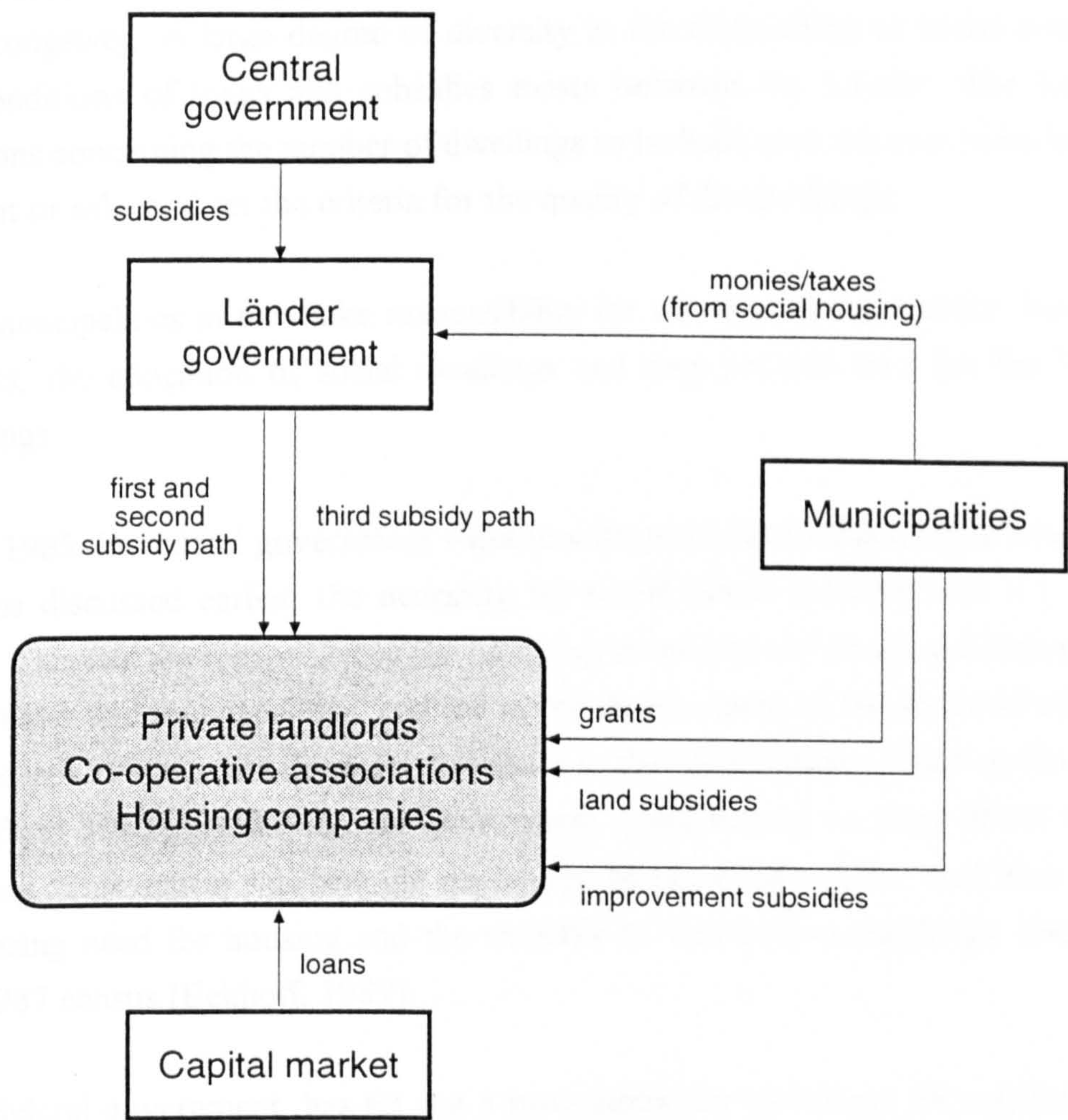
- i) Capital subsidy in the form of a low interest loan, that will partially finance the construction of a dwelling;
- ii) Operating costs subsidy, usually paid over a 15 year period with the subsidy decreasing each year. The size of the original subsidy depends on the floor space of the dwelling;
- iii) Operating cost loans to partially cover capital expenditure. The amount of the loan will depend on floor space. Loans are given for 15 years and, again, the amount paid in the first year is reduced annually. Repayments of 2 per cent per year begin from the sixteenth year. Interest at 6 per cent on the unrepaid part of the loan must also be paid from the sixteenth year.

Generally, institutions constructing social rented dwellings must finance at least 15 per cent of the building costs themselves. As well as subsidised loans from the Länder, loans can be taken up from the capital market. These are loans on an annuity basis with a term of thirty years (Papa, 1992, p61). If an operating cost subsidy has been allocated, subsidies may also be given in the form of sureties for mortgages which are obtained at market rates (Hubert, 1992).

b) Responsibilities for allocating subsidies

The relationships between the government and housing bodies responsible for the construction and improvement of social rented dwellings is shown in Figure 6.3. The federal government determines the amount of subsidy to be allocated to the social housing programme each year, and also determines the cost rent. The Länder governments are obliged to allocate an amount

Figure 6.3: Social Housing Finance System, Germany



to social housing equal to that which the central government is allocating to their Land. They are responsible for awarding social housing subsidies and loans resulting from the social housing programme together with any they wish to grant from their own budgets (via, for example, the third subsidy path). The Länder decide how funds are allocated between the three Förderungsweg. A large degree of diversity in the channelling of social housing finance and the conditions of loans and subsidies exists between the Länder. The Länder also make decisions concerning the number of dwellings to be built over the year, whether these are to be for rent or sale, and set the criteria for the quality of the dwellings.

The municipalities in turn take responsibility for urban planning matters, issuing construction permits, the allocation of social dwellings and they provide land for the building of social dwellings.

From 1985 the federal government withdrew from the direct financing of social housing as, for reasons discussed earlier, the necessity for social house building was not seen as being so great. This left the responsibility for financing all new social housing developments entirely to the Länder and municipalities, and led to the development of the Dritte Förderungsweg. Even so, the late 1980s saw a dramatic downturn in the construction of new social dwellings. It was only from 1989 that the federal government again started to grant direct subsidies for new building. This action was brought on largely by reunification, but was also influenced by the increasing need for housing and the shortfall of 'one million dwellings' discovered following the 1987 census (Eekhoff, 1989).

The federal government has set out a programme for its budget allocations to social housing up to 1997. These have been increased considerably since the late 1980s. In 1988 federal funds for the social housing programme stood at DM 0.45 billion and DM 1.05 billion in 1989. However, between 1990 and 1997 it is estimated that funds will average out at approximately DM 3 billion per annum including subsidies for the new Länder.

c) Improvement subsidies

From 1977 subsidies to encourage the improvement of rented dwellings took two forms: low interest loans and operating subsidies. These were financed jointly by the federal and Länder governments and were implemented through the municipalities. Schemes were targeted at older urban areas and on energy saving projects (Tomann, 1990).

d) Rents

A scale of social rent levels is set annually by the Länder. These are the rents that tenants in social dwellings actually pay. For individual landlords to arrive at this social rent, they must

initially make a calculation of cost rents, which will then be adjusted down to the social rent through negotiation of different subsidies. (The description of the system of social-cost rent calculations relies heavily on Hubert, 1993).

The cost rent calculation must be made for each individual project and is based on an estimation of construction costs, land costs, and (where subsidies are in the form of current allowances) interest on loans throughout the construction period. From all of these items a 'cost rent' is arrived at. The difference between the cost rent and the social rent set by the Länder, is made up by a subsidy payment through one of the subsidy paths. The investor gets a return equivalent to the cost rent (social rent plus subsidy). The cost rent is binding until public loans or subsidies are fully repaid and the dwellings revert to the free rental sector.

Increases in rent are dealt with differently, depending on the type of financing and subsidy awarded. The different systems of rent increases caused problems to tenants, as landlords can pass on increased costs. Social rents have been rising at increasing rates. Higher rents have not been accompanied by increases in incomes to the degrees that were anticipated in the methods of rent calculation. Thus, rising rents have been an increasing burden on tenants.

According to general Tenure Law, eleven per cent of all improvement costs can be passed on in higher rents. This led many landlords to carry out extensive improvements purely so that they could charge an increased rent which means many tenants experienced great hardship in meeting higher rental demands. Changes are being made to the system so that the cost rents are not being set so high.

6.6.3 Evaluation

While a number of recent changes have been made to the system of social housing in Germany, considerable problems still remain in the sector. These include:

- a) an increasing pressure on waiting lists from immigrants from eastern Europe, and also movement within Germany since reunification;
- b) increased demand on social dwellings due to increasing household formation;
- c) problems of 'under occupation' of social dwellings as households become smaller but remain in the same size dwelling;
- d) access to the social housing stock, with difficulties being experienced by 'problem households' as landlords become more and more selective;
- e) the question of whether social landlords are really fulfilling their 'social' obligation. This has been brought even more into question as non-profit status is ended for many organisations.

These issues are currently being debated. A number of questions need to be addressed, such as should high income earners be allowed to remain in the social dwelling stock? Should new immigrants who have never paid into the social welfare system be entitled to receive social housing? There are discussions about how the Fehlbelegungsabgabe might be changed, to increase more proportionately with income.

However, a principal concern is still the need to build more social dwellings. Increasing construction in this sector is now a major policy issue, even more so following the changes in the non-profit status of landlords in 1990 and the reduction of the stock as social loans are repaid. It is a topic fraught with political sensitivity in terms of responsibility between the federal and Länder governments.

6.7 Social housing in the Netherlands

The Netherlands has the largest social housing sector in Europe; in 1993 41 per cent of its total housing stock was devoted to social housing. Social housing in the Netherlands is distinctive, particularly compared with the UK, in that it has catered not only for lower-income but also for median income households. Dwellings are built to a high standard and until recently a large degree of state intervention existed in the sector to encourage construction and to keep rent levels down. Social dwellings were therefore a much sought after form of tenure and many households remained in social dwellings even when their incomes rose.

Avoiding social segregation and the stigmatisation experienced in many other European social sectors is seen an achievement of Dutch social housing. However, more recently as government intervention and subsidies have been quite dramatically reduced, shortages are being experienced in many parts of the country and questions are being raised about the necessity to target social housing to those in most need. As the sector is expected to take on more autonomy, and at the same time receive fewer subsidies, there are a great deal of changes, particularly for the housing associations.

Most of the policies that are now being implemented were outlined in the 'Policy Document on Housing in the Nineties' which was put together by state secretary Heerma in 1989 (Netherlands Ministry for Housing and Physical Planning, 1989). Several changes are thus a consequence of the 'Heerma Memorandum'.

6.7.1 Social housing provision and management

The social housing stock in the Netherlands is managed by two groups: housing associations and municipalities. However, it is the housing associations that dominate the sector. In 1991 860 associations managed about two million dwellings, which account for 37 per cent of the total Dutch housing stock. In the same year about 210 local authority housing organisations owned and managed about 300,000 dwellings.

Housing associations are incorporated as non-profit associations or foundations and are registered with the central government as being exclusively engaged in promoting housing. Originally associations stemmed from social organisations such as churches or trade unions and remained small bodies. However, since the late 1960s legislation required that associations should be the main providers of new social housing and their role has therefore grown considerably.

Housing associations are non-profit organisations. They require certification and authorisation from the central government to become an 'authorised institution'. Any surplus or profits made must be re-invested in housing, and their objectives are to provide, construct, improve or manage homes to meet general housing need.

As the role of housing associations has increased they have become more professional, with fewer volunteers controlling policy. Associations build dwellings for social renting and, occasionally for social home ownership, and are becoming more and more involved in the selling of social rented dwellings.

They are monitored primarily by the local authority in which they operate but some supervision also takes place from central government. The housing associations' dwelling stock is relatively young and is generally well maintained.

Municipal housing agencies also manage social housing stocks and they perform this role either as independently incorporated companies or departments of the local authorities themselves. The dwellings provided and managed by the municipalities are somewhat older than association dwellings and have, on average, lower rents (Priemus, 1990b). However, following the 1965 Housing Act, housing associations were re-established as the 'primary' provider of social housing giving them the first option to build any new social dwellings. A municipality would only be able to take over the development of a site where all housing associations refused to develop. Now, however, there is only a small volume of new municipal building in this sector.

As part of the overall changes in the sector these local authority organisations are required to become housing associations before January 1997. This was decided partly to confirm the role of the municipalities as local government bodies rather than social housing landlords. However, it was also decided that as the municipality was the primary monitoring body of housing associations, they should not be in a position of having to 'check up' on themselves. Municipalities are therefore 'handing over' their stocks to housing associations or changing their status and forming new management boards. This has also meant a great deal of deregulation in the sector as more individual responsibility is given to associations. This can be seen particularly in the financing arrangements (see section 6.7.2).

The associations, and remaining local authority housing companies, are grouped into two national federations. The Nationale Woningraad (NWR, National Housing Council) had 730 member organisations in 1990, managing a stock of around 1.3 million dwellings. It has traditionally represented the interests of the secular housing associations and municipal landlord companies. The Netherlands Christian Institute (NCIV) had 425 members in 1990 and managed around 750,000 dwellings. Members tend to be smaller housing associations and originally had a religious base. The umbrella organisations act as a national lobby for their members' interests and as a source of advice on specialist management issues.

a) Role of government - control and monitoring

Housing associations have had strong links with the government since the 1901 Housing Act obliged them to become registered institutions in order to receive government subsidies. The central government maintains a strong interest in social housing and monitors the financial performance of housing associations. It creates the framework for the execution of public tasks by setting down a national programme of new building and improvement work each year.

Municipalities play a monitoring role in the social housing sector. They are responsible for ensuring that land is available and affordable for social house building. They grant building licences and keep checks on the quality of construction. They traditionally had the power to control and steer social housing activity in their area. They receive and allocate funds, have had the power to guarantee loans and play a large role in the allocation of housing. The central government has little direct involvement in management although it does set general financial rules, allocate budgets and grants to local authorities and set rent levels. Since 1993 a much greater role is being played by the regional governments, which have taken over some of the responsibilities of the local authorities, particularly for allocating funding.

An important emphasis is put on a close relationship between the levels of government and housing associations to maintain structured co-operation. While both this working practice and continued subsidies have been largely responsible for the success of social housing, these relationships will be put under pressure as government regulation of the sector changes.

Housing associations are required to make an annual report to the municipalities. In the past this report set out plans for the coming year and needed to be approved by local, and sometimes central, government. However, following the 1993 Social Rental Sector Management Decree, associations will be assessed on their performance in the previous year, rather than planning for the forthcoming year. Their report must state achievements in terms of quality of dwellings, housing provided for low-income earners, financial continuity and degree of consultation with residents. The annual report goes first to the municipalities who then discuss particular cases with the Housing Ministry if performance is 'below par'. Performance indicators are thus in operation.

Housing associations have been given increased autonomy in achieving goals, but with fewer regulations some are experiencing difficulties. The Dutch umbrella organisation, the NWR, reports that some housing associations were not able to cope with the new financial responsibilities. There has been some unorthodox land speculation and investment activities. In response to this both umbrella organisations, the NWR and the NCIV, took the initiative to establish an internal 'code of practice' for its registered housing associations to aid them in their new responsibilities.

b) Access and allocation procedures

In the past local authorities had the main responsibility of allocating social rented dwellings. Each municipality used to set its own allocation criteria. Although housing associations followed these regulations they also used to play a role in negotiating their details. This led to a lack of co-ordination as some towns or cities had several waiting lists functioning concurrently. Waiting lists have often operated on a point setting system. Where shortages were most acute residents were once required to first obtain a 'residence' permit from the municipality before they could qualify for allocation.

However, from July 1993 these regulations lapsed and the new 'Accommodation Act' came into being. This has made a series of changes to the allocation of dwellings. The Act provides a statutory framework for distributing social dwellings, under which municipalities have the power to attach conditions to the allocation of particular part of the stock. Dwellings below a set rent level may be set aside for households on lower incomes or in greater need.

Allocations under the new Act may also be made over a wider area as co-operation at the regional level is encouraged to increase choice and flexibility.

Points systems are becoming less popular now as problems with co-ordination continue. Recently, distribution has become more liberalised with a new 'market system' of allocation operating in some areas. Applicants are encouraged to play a more active role in finding themselves a dwelling. Information is made available to prospective tenants who may then register for any dwelling for which specific criteria are met. The dwelling is then allocated to the case that meets the specific criteria best.

A continuing problem is overall access to the social housing stock, and the 'skewed' relationship between high income earners in low rent social dwellings. As the social sector in the Netherlands was never targeted solely at lower income households, but also encompassed many middle income earners, it was not initially seen as a problem when tenants' incomes increased and they did not move. Over time, though, the proportion of households on high incomes in the social sector has grown considerably. With increasing income, many households are choosing to remain in low rent social dwellings rather than move on to other accommodation, even if living space is rather cramped. This is particularly the case if dwellings are located in areas with good amenities. This has become a major issue as household formation continues in the Netherlands at a fast rate.

This distribution problem is currently being tackled by trying to free up cheaper dwellings, through turnover of the stock, and strategic new construction of more expensive dwellings to draw some households out of the social sector. This new construction is taking place particularly in the owner occupied sector. In addition, municipalities and housing associations are urged to target available dwellings to lower income earners as much as possible.

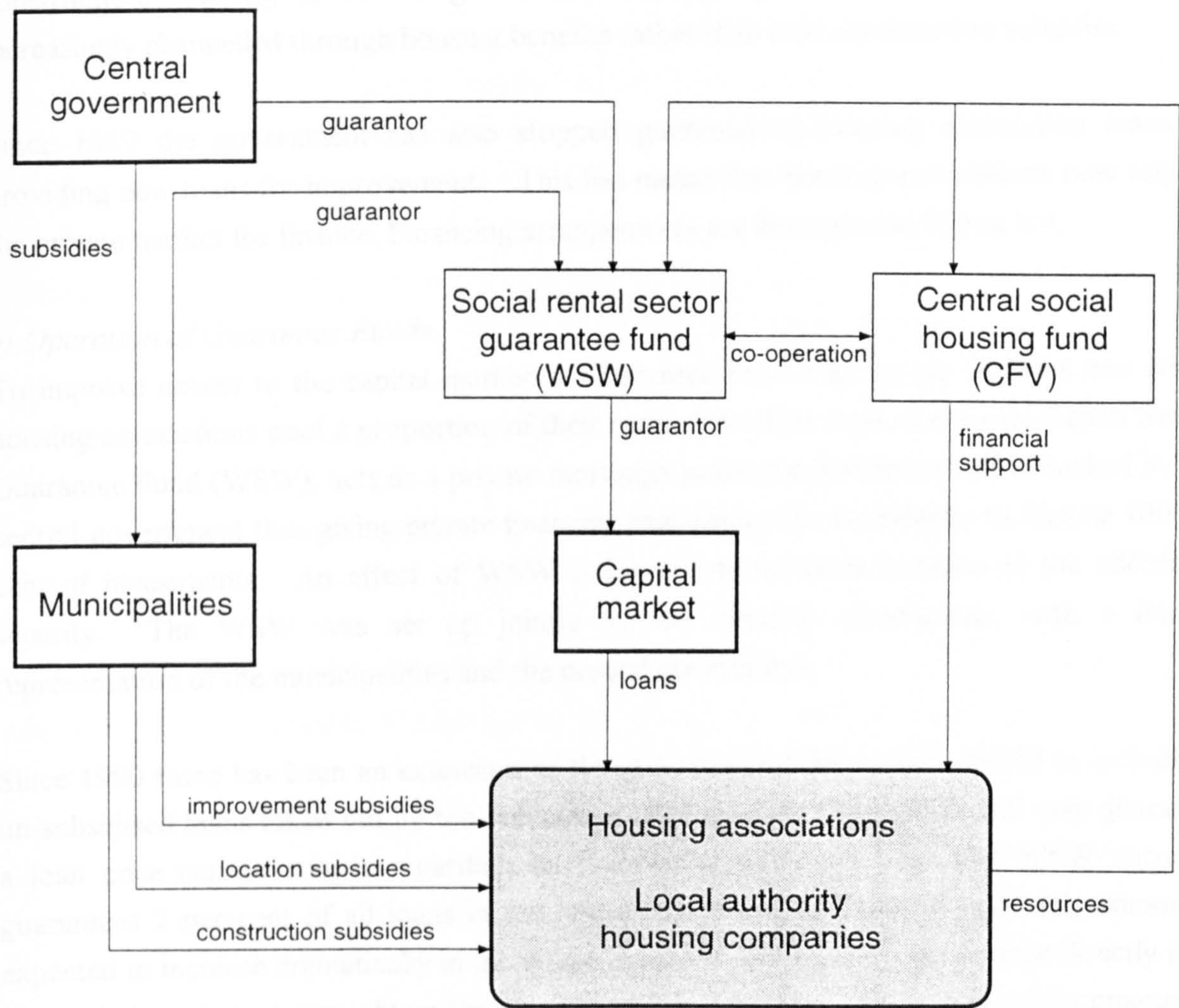
6.7.2 Financing and subsidies for social housing

There have been changes over the last decade in the Netherlands in the emphasis on social housing. The share of new subsidised social housing in new construction has fallen since the early 1980s. An increasing significance is being attached to the owner occupied sector as the central government cuts back public expenditure and reduces subsidies to social housing.

a) Construction of social rented dwellings

Until 1988 some housing association and local authority housing construction was financed by central government loans aimed at keeping rents down to a controlled, government-set, level and ensuring that high levels of building occurred. However, due to the increasing costs of

Figure 6.4: Social Housing Finance System, Netherlands



this subsidy system, government loans for constructing new dwellings were stopped after 1988. Since that time government subsidies for social housing construction have also been gradually reduced. As part of the continuing change in government intervention in the housing market, after 1995 there have been no further government subsidies for social housing construction. Money is now targeted more specifically at those in most need and is increasingly channelled through housing benefits rather than new construction subsidies.

Since 1989 the government has also stopped guaranteeing housing association loans or providing new loans for improvements. This has meant that housing associations now rely on the private market for finance. Financing arrangements are illustrated in Figure 6.4.

b) Operation of Guarantee Funds

To improve access to the capital market, a Guarantee Fund was set up in 1984 into which housing associations pool a proportion of their resources. This fund, the Social Rental Sector Guarantee Fund (WSW), acts as a private mortgage insurance institution and is backed by the central government thus giving private financing institutions the confidence to finance 100 per cent of investments. An effect of WSW is lower interest rates because of the additional security. The WSW was set up jointly by the housing associations, with a limited representation of the municipalities and the central government.

Since 1990 there has been an extension of the guarantee facilities of the WSW to include all un-subsidised loans taken out by the voluntary housing sector. The WSW will only guarantee a loan once certain criteria regarding its financial position are met. The WSW currently guarantees 2 per cent of all loans in the social rented sector (1994-95) and this amount is expected to increase dramatically in the future. Associations may also get finance directly from the capital market or may obtain loans with municipal backing. All existing state guarantees can now be transferred to the WSW.

Working together with the WSW is the Central Social Housing Fund (CFV), also set up by the housing associations. It was established to help out organisations in financial difficulties and it uses its resources to reorganise the funding of financially weak associations. The CFV was set up in 1987 and its existence means that, "without government aid, the sector itself attends to the covering of risks among weak fellow corporations" (Priemus, 1995, p.147).

The CFV is financed through annual contributions from all associations according to their size and budget. The fund will measure the financial position of an association and will take responsibility for its internal reorganisation if certain criteria are met. The CFV will make interest free loans to associations on the condition that cost-effective operations will be

possible within three years (Priemus, 1995). The CFV and WSW work closely together to solve financial difficulties with contributions sometimes coming from both institutions. As such the WSW and the CFV, "embody the independence of the housing corporations in the Netherlands at sector level" (Priemus, 1995, p.148).

c) Subsidies for construction and improvement

The government has continued to support social housing with subsidies. Until 1995 the central government determined the size of the budget for housing subsidies, which it allocates to regional groupings of municipalities. This subsidy is divided between municipalities according to the extent of housing shortage, association reserves, spatial policy and the housing stock distribution ('skewness') in each area. Municipalities make decisions, according to need, as to whether the money subsidises new construction, improvement work or is used, for example, to reduce rents in their area. They will also determine how the money is distributed between renting and owner occupied occupation.

Subsidies can be allocated in a number of different ways. There have been operating cost subsidies, incentive subsidies and supplementary subsidies.

Operating cost subsidies have been available to housing associations on the conditions that land costs and rents charged fall under a set ceiling, and rent levels are fixed on an annual basis at 6.5 per cent of the investment cost. Major improvements in pre-war rental dwellings have been supported. Rents charged after improvements could not exceed a set ceiling. These subsidies were paid to the municipalities in a series of annual contributions amounting to 10 per cent of the total cost.

One-off incentive payments have been available for more expensive rental and owner occupied dwellings. These payments were only made in certain urban areas where sufficient cheap rental dwellings already existed. For rental dwellings the payment was around Dfl 10,000 on the condition that the investment cost and rents were below set ceilings.

Supplementary subsidies are available in the form of: a location supplement, for differences in costs - particularly land costs; a rent reduction supplement, awarded for example for rental dwellings built to replace demolished homes. These subsidies are targeted particularly to areas of urban renewal. However, it is expected that these will gradually be phased out as urban renewal programmes are reduced (Netherlands Ministry of Housing and Physical Planning, 1993).

These subsidies which have been in operation since 1992 are part of a phased plan in social housing subsidisation. On 1st January 1995 a new Order on subsidies tied to housing (BWS) took effect. From this date operating subsidies are no longer granted. Subsidies are, instead, in the form of small one-off incentives to build social dwellings. There is a single housing budget allocated to the regions who may then distribute the funds between housing types and sectors as required. This is effectively part of a planned cut in government expenditure to social housing construction and subsidisation.

d) Rent policy

From 1975 to 1988 rents in the social sector were set and increased according to the dynamic cost pricing system. Under this method of calculation, rents were laid down by the central government and kept below cost levels for the first years of a development through government subsidies. Increases during this period were set by the government which meant that rents bore little relation to the specific dwellings. A particular problem of this system was that rent levels were anticipated to increase in line with inflation so that costs would be covered and government subsidies could be reduced as time went on. However, during the 1980s particularly low rates of inflation meant that the government was paying very large subsidies to keep costs and rents low.

In 1988 the dynamic cost price system was abandoned due to the budgetary burden it was creating. Now rent setting has been liberalised so that associations have more freedom in matching rents with costs and quality. Rent increases are also freer and can be set by individual landlords within government limits. However, with less government subsidy, housing associations are also forced to take on more risk and rent levels are expected to increase quite dramatically as borrowing costs rise and risk increases.

Housing associations are facing difficult choices if they are to keep rents low enough for tenants. Concerns within the social housing movement are focused particularly on rent levels in the future as the market plays an increasing role in the financing of social housing. As housing associations rely on the private capital market, any increase in the interest rates could have a dramatic effect on investment levels.

6.7.3 Evaluation

The social rented sector in the Netherlands is going through a series of major changes, both in its management and financing arrangements. Increasing emphasis is being given to market forces, subsidies have been shifted from the supply side to the demand side and there is more deregulation and liberalisation. The Netherlands seems to be going further than other countries

by stating that new social housing can be basically self-supporting. In this respect the NWR sees the government at "an intermediate stage on the road to unsubsidised housing" (NWR, 1995, p4). There are, however, in relation to the new policy stance, a number of concerns for this sector.

As the government in the Netherlands is withdrawing subsidies and financing for new social housing is coming entirely from the capital market, housing associations are becoming increasingly business-like and operating like entrepreneurs. This change in role of social landlords is having a series of effects. New construction involves greater risk and housing associations may be more cautious about supplying the quantity of social housing that is needed.

Rents are rising and there are increasing concerns about the future affordability of dwellings in this sector. Pressures on land availability, existing shortages in the sector, especially in the western provinces as well as increasing numbers of asylum seekers are all further problems. These problems are exacerbated by the fact that the existing stock is now partly 'misallocated' due to the quantity of high income earners currently occupying social dwellings.

6.8 Social housing in the United Kingdom

Social rented housing in the UK is provided principally by local authorities and housing associations, the former being responsible for around 21 per cent of the total housing stock and the latter for about 3 per cent. In Scotland, Scottish Homes is also a major public sector landlord. In Northern Ireland the role of local authorities is performed by the Northern Ireland Housing Executive. Specially created New Town Development Corporations have managed and developed housing in the past. Most of their stocks have now been transferred to local authorities and housing associations. The process will be complete by the end of the century.

6.8.1 Social housing provision and management

Local authorities until recently had the main responsibility in the UK for constructing and managing social housing. During the 1980s the role of the local authorities was greatly reduced. New construction of 'council' housing fell dramatically from a high point in 1953 of 229,000 homes per annum (Merret, 1979) to a total of only 11,000 completions in 1991 (DOE, 1993). In 1979 35.6 per cent of all dwellings built in the UK were completed by the public sector (local authorities, new towns and government departments). In 1992 only 3.2 per cent of all dwellings were completed by the public sector. This decline has been a direct

result of a Conservative government which believed that too much public expenditure was being devoted to public sector housing. Grants from central government to local authorities have fallen considerably and there are severe constraints on new building. Since 1980 over 1.5 million council dwellings have been either sold under the Right to Buy or transferred to housing associations. Some of the best quality housing has been sold and lower income tenants are left in lower quality stock. The process of 'residualisation' has left council housing with a strong welfare role to perform without sufficient resources to fulfil its functions adequately (Malpass and Murie, 1990) .

Local authority housing has become increasingly professionalised. The Chartered Institute of Housing, with members in local authorities and housing associations, has a well developed education and training programme which tries to promote good practice in the housing service. It is important to see this service, in a British context, as more than 'bricks and mortar' provision. There is, in the best authorities, a tradition of concern with the wider well-being of tenants.

The rights of tenants regarding choice and service have been formalised in a Tenants Charter which seeks to improve the tenants' awareness of their rights and the response of local authorities to tenant demands. There is a continuing process of trying to get more tenants involved in the management of their housing by means of tenants' associations.

Since 1988 the government has made it clear that it wishes local authorities not to be housing providers but to be 'strategic enablers'. The enabling role means that authorities oversee and monitor housing provision in their area, working particularly with housing associations, but do not get involved in significant new developments (Bramley, 1993).

Housing associations have been playing an increasingly important role in social housing provision, despite having responsibility for only a small proportion of the stock. In 1992 housing associations managed 3.3 per cent of the total housing stock, having about 788,000 dwellings. Given that there are over 2,000 associations, the average size is small by European standards. In 1992 housing associations built about 25,000 dwellings, which was around 14.5 per cent of total housing construction. Most housing associations are members of the umbrella organisation the National Federation of Housing Associations (NFHA) or the Scottish or Welsh equivalent. The federations act as a lobby for the movement and offer advice to members.

Housing associations register with the Housing Corporation or in Scotland, Scottish Homes, and in Wales with Tai Cymru. These bodies, set up by central government, perform both a

monitoring and funding role in relation to housing associations. Associations have to prepare regular reports and they have their progress checked against performance indicators.

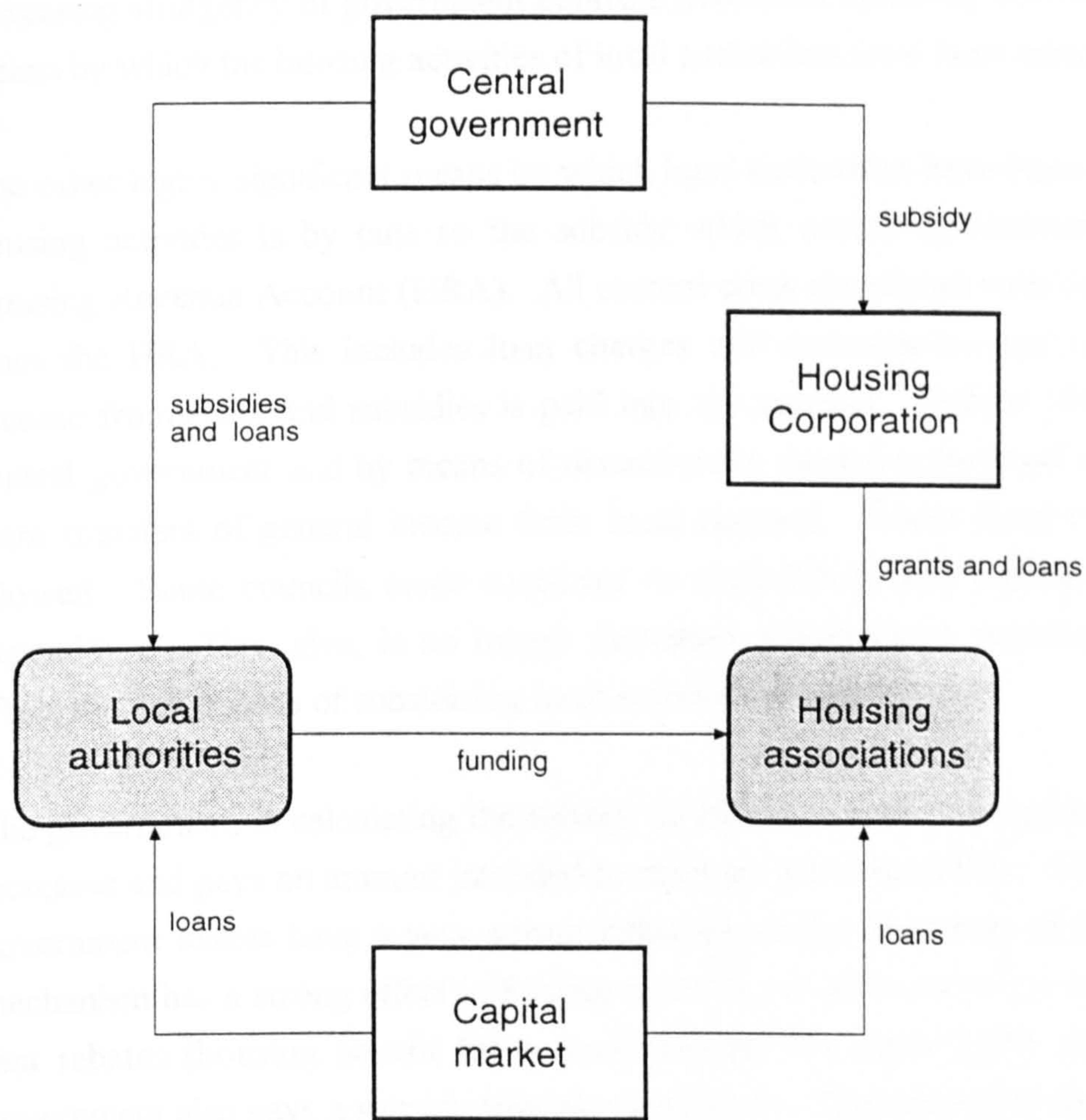
In England and Wales which together have 89 per cent of the UK housing stock, local authorities and housing associations control the social rented stock. In Scotland (9 per cent of the UK. housing stock) an additional provider is Scottish Homes which manages about 59,000 dwellings (as well as performing its financing role). Scottish Homes is, however, gradually divesting itself of its stock in favour of housing associations. With nearly 35 per cent of the housing stock rented from local authorities, new towns and Scottish Homes and nearly 3 per cent rented by housing associations, the social rented sector is significantly higher in Scotland than in England and Wales (Scottish Homes, 1994).

In Northern Ireland (2 per cent of the UK. housing stock) local authority housing was transferred in 1971 to the Northern Ireland Housing Executive. The Executive performs a strategic planning and development role, builds and maintains houses, and assists by means of grant aid, other organisations, especially housing associations, to provide housing. While over 27 per cent of Northern Ireland's stock is managed by the Executive less than 2 per cent is managed by housing associations. The Executive is supported by direct government funding. The 46 registered housing associations are financed and regulated by the Department of Environment for Northern Ireland (Williams, 1994).

6.8.2 Financing and subsidisation of social housing

A summary of the financial relationships is given in Figure 6.5. Local authorities have borrowed money both from the government and the money market to finance past development. Their ability to borrow to finance future capital expenditure is closely controlled by central government. Every year each local authority produces a Housing Strategy Statement and an associated proposed Housing Investment Programme (HIP). Together these provide an assessment of the housing situation in their area and set priorities for expenditure to tackle problems. Central government responds to HIP bids by giving grants to assist public sector renovation and a Basic Credit Approval (BCA) for each local authority. The BCA is the local authority's permission to borrow money to engage in capital expenditure. As far as council housing is concerned, most of this will now be for repairs and modernisation rather than new building. The local authority can borrow up to the BCA limit from a combination of government and money market sources. For agreed additional needs an authority can be granted a Supplementary Credit Approval (SCA).

Figure 6.5: Social Housing Finance System, UK



In setting credit approvals government takes account of a council's capital receipts from selling council houses. In England and Wales only 25 per cent of these receipts can be retained for expenditure on housing; the remainder must pay off accumulated debt (Aughton and Malpass, 1994, pp.38-40). This constraint on use of capital receipts has not applied in Scotland. The increasing stringency of government controls over local authority borrowing has been a major means by which the housing activities of local authorities have been curtailed.

The other highly significant means by which local authorities have been forced to reduce their housing activities is by cuts to the subsidy which central government pays to a council's Housing Revenue Account (HRA). All current costs associated with council housing are met from the HRA. This includes loan charges and maintenance and management expenses. Income from rents and subsidies is paid into the account. Before 1990 subsidy came from central government and by means of discretionary payments by local authorities. The latter were transfers of general income from local taxation. These local transfers are no longer allowed. Some councils made surpluses on their HRAs and transferred money to general expenditure. This, also, is no longer permitted. Government payments to the HRA are in effect the only means of subsidising local authority provision.

The government, in calculating the subsidy to HRAs, makes assumptions about costs and rent increases and pays an amount intended to meet an assumed deficit. The assumptions that the government makes have a very strong influence on the operation of the HRA. The subsidy mechanism has a strong effect in forcing up rents. In addition to the other items, the costs of rent rebates (housing benefit for council tenants) are, since 1990, met from the HRA and government also pays a subsidy towards these costs. The subsidy to the HRA thus consists of a 'housing element' and a 'rebate element'. While the latter is always positive, the former may be positive or negative depending on the government's view of the financial circumstances of any given HRA. An effect of this is that tenants who do not get rebates can be effectively subsidising lower income tenants who do receive rebates.

A major financial consequence of council housing has been the rent pooling and cross-subsidisation effects which have come about in the absence of cost price rents. Local authorities retain their nominal freedom in setting rents but, as indicated above, the subsidy system has a strong influence on rent levels. The government issues guide-lines for annual rent increases. The rent increases are related to assumptions about the capital value of dwellings, so the intention is that rents will reflect what the property is worth.

The government's support for housing associations is channelled through the Housing Corporation (in England and its equivalent in Wales and Scotland and the Department of the

Environment in Northern Ireland) which has an annual Approved Development Programme (ADP). This is distributed to regions and then to individual housing associations on the basis of bids from the associations. Since 1988 associations have been required to obtain an increasing proportion of their funds from the private capital market. The Housing Corporation pays a one-off capital grant to housing associations which once covered up to 90 per cent of the capital costs of a project. However with the deregulation of housing association funding and rents this Housing Association Grant (HAG) has been reduced and housing associations are expected to raise more funds from the capital market. The average level of HAG fell from 75 per cent of project costs in 1989/90 to 62 per cent in 1994/5, and is expected to fall even more. It is still possible for housing associations to borrow the remaining funds from the Housing Corporation (or equivalent) or local authorities, but if they are financially strong enough associations are expected to borrow privately (Aughton and Malpass, 1994, pp.50-62). The aims of the changes were to reduce government expenditure, but at the same time increase investment in social housing through more private sector investment, and to deregulate rents to bring them in line with market levels. Housing associations are therefore having to compete on a more commercial level for private financing. This increases their risks.

Despite the more market orientated framework, housing associations are still expected to charge affordable rents but with grant reductions and little opportunity for quality reductions or efficiency savings the ability of associations to cater for low income tenants in the future is an issue of great concern. The problem is the greater because government is relying on housing associations for new social housing provision. The net effect of the financial changes in social housing in recent years is a shift towards subject rather than object subsidies and rising rents. In this climate future investment levels and affordability are the major unknowns.

6.9 Implications of structures of social housing provision for welfare state regime types

Having provided detailed accounts of the 'current' structures of social housing systems in France, Germany, the Netherlands and the UK it will now be possible to examine some of the implications of these different forms of provision in terms of the classification of welfare state regime types. According to the theoretical approach adopted by Esping-Anderson consideration must be made of the historical development and current structures within the welfare state to classify welfare state regime types. The development and growth of the welfare state in France, Germany, the Netherlands and the UK was discussed briefly in section 5.2.1 and classifications that had been adopted by Barlow and Duncan were outlined in 5.2.3. Section 6.3 at the beginning of this chapter noted that characteristics of different welfare state types for housing are manifested in alternative structures of housing provision and institutional

arrangements. It will be useful, in exploring the links between structures of provision and welfare state types, to make some comments on how the system of social housing described might help in the classification of welfare state regime types. This section therefore addresses the question, what can the evidence provided in this chapter contribute to the debate of both structures of provision and the classification of welfare state types?

Discussion in chapters two and five outlined the general theoretical characteristics and the more specific housing characteristics that might lead to classifications of liberal, social-democratic or corporatist welfare regime types. Earlier analysis by Barlow and Duncan (1994) classified Britain as having a largely liberal welfare regime type for housing, the Netherlands as having a social-democratic form of welfare housing provision and France and Germany as having a corporatist regime type (although France also had elements of a social democratic system). It was acknowledged that no simple and pure case exists, with many countries often having elements of many regime types in their housing systems. It will be useful to return briefly to these classifications and their theoretical grounding in the light of the information outlined in this chapter.

Initially it was suggested that the welfare provision of housing in the UK fitted a broadly liberal welfare state type, particularly since the beginning of the 1980s. Much of the evidence in this chapter clearly supports this proposition. While in the past local government played a major role in the direct provision of social housing, evidence in section 6.8 clearly indicates that the government has withdrawn from direct provision in favour of housing associations. This is in line with Esping-Anderson's theory that in liberal regime types the state takes a back seat role and encourages the market as the main provider. This can be seen in relation to housing provision in the way that the government now provides limited funds to housing associations for new social housing provision and expects them to get large amounts of funding from the market. Discussion in section 6.6 also indicates a gradual residualisation of the social housing stock in the UK as the sector has become, to a large extent, stigmatised provision for a residual population. This is also a key feature of a liberal regime type. Finally, it was stated that in liberal regime types governments concentrate their support on consumption rather than production. This is clearly the case in the UK as expenditure on housing benefits have risen dramatically, especially relative to capital expenditure, during the 1980s and 1990s. The structures of provision described in this chapter do seem to suggest a liberal welfare regime type for the UK.

France and Germany were classified as being broadly associated with the corporatist welfare regime type in their housing provision. Evidence suggests that this is much more the case in Germany than in France. In Germany typical features of a corporatist regime type such as a

more widespread support for welfare provision, but the maintenance of a temporary problem solving role for social housing are apparent. A key theoretical connection to the corporatist regime type was that the state is prepared to displace the market when necessary. This was seen in the discussion in section 6.6 on Germany. In the second half of the 1980s the government cut off support for social housing because it was considered not to be needed, but then was re-introduced in 1989 when it was clear that need had increased. While the role of social housing in Germany closely fitted the corporatist regime type during the 1980s, the government has been taking a significantly greater role in supporting production into the 1990s to respond to increased need due to reunification.

France does also have some characteristics of a corporatist regime type in its structures of housing provision. There has been a high level of widespread support for social housing provision in the past. While the French government has also increased support in times of specific need, illustrated for example, by the increase in production subsidies for social housing loans around 1990, it has never played the temporary social problem solving role as strongly as in Germany. The significant contribution of the state to the social housing production process does tend to indicate elements of a social democratic system. In addition, during the 1980s many parts of the French housing stock have become increasingly residualised, displaying some characteristics of a liberal regime type.

Finally, the Netherlands has been characterised as having a social democratic welfare regime type for housing. Many of the characteristics of the social housing system confirm this classification. In particular the strong state support in the past for social housing production and the much more universal role that the social sector has played in the Netherlands - social housing has historically been available to much of the middle- as well as working classes. However, significant changes in the system of providing social housing have taken place (see section 6.7) and may lead to different conclusions in the future. The significant withdrawal of state support for all production subsidies and a greater reliance on consumption subsidies indicates a tendency away from a social democratic regime type. It is also clear that the government is supporting the market in its provision of social housing rather than being involved in direct subsidisation. The history of the social sector in the Netherlands, as a high quality widely available tenure, makes it difficult to suppose it will ever become as residualised as the sector is in the UK. However, as indicated by much of the discussion in this chapter changes are apparent in social housing provision in all countries which may threaten its welfare role and signify the development of new welfare regime types.

This section has illustrated that an analysis of the current structures of social housing provision can provide a useful basis for classifying welfare regime types. However, it does seem to

illustrate the weaknesses of Esping Anderson's three welfare regime types. The UK does seem to fit into the liberal regime type, and Germany in a corporatist regime type in terms of their social housing provision. However, in an examination of all four countries it is clearly very limiting to say that one regime type fits one social housing system, even at any one time. While the importance of the development of the welfare state and the characteristics of current welfare housing provision clearly have consequences for housing investment, it is clear that simple classifications of countries into different regime types appears to be a problematic method for conceptualising differences in housing systems.

6.10 Concluding summary

This chapter has provided structured descriptions of the systems of social housing provision in four countries. It has highlighted many differences in the way that social housing is provided in France, Germany, the Netherlands and the UK. In particular, significant differences are apparent in the institutional providers of social housing. While the UK, historically, gave considerable responsibility to local governments to directly provide social housing other countries have used a variety of non-profit making public and private bodies, private companies and private individuals to build and manage social housing. In addition sources of funding for social housing construction vary considerably. While all governments have subsidised social housing construction, improvement work and rents in some way the figures illustrating social housing finance systems show many differences in sources of finance and in guarantee schemes used. It is clear that governments play a significant role in monitoring social housing provision and financing, and are generally responsible for setting budget guidelines. However, that role does vary between countries.

Within the social housing sectors some similar trends and common problems can be identified. These include the increasing role of the market in provision and financing for social housing. It has been shown that the reduction in public expenditure for social housing construction has caused similar difficulties for organisations to obtain funding and keep rents at a low 'social' level. Social housing providers in all four countries seem to be experiencing difficulties in maintaining their social role as government subsidies are cut and while they are expected to operate more like private enterprises.

The previous section has highlighted the significant links between structures of social housing provision, the welfare state and welfare regime types. In particular it has shown that an analysis of current structures of provision can be a useful tool for conceptualising different welfare regime types. It also highlighted the difficulties of classifying different countries within

the limits of any one of Esping Anderson's welfare regime types. More comments on the implications and usefulness of using this categorisation of regime types will be made in the concluding chapter.

Using a structures of provision approach has revealed a number of additional factors, such as those mentioned at the beginning of this section that, together with the results of the testing the broad national aggregates and the investigation of government and policy factors, might provide explanations for levels of, and differences in, housing investment levels. Indeed, the identification of different structures of provision provides a useful framework for making comparisons of housing investment levels to be undertaken in the next chapter.

While it is acknowledged that this chapter has been a largely descriptive account of the different systems of social housing provision in the four countries, the structures of provision approach adopted has clearly been beneficial as a methodology for ordering and describing the different social housing systems. This information is important to enable further analysis in the following chapter, which will explore some of the differences that have been discussed and examine how the different structures of social housing provision might affect housing investment levels.

Chapter 7: Do structures of social housing provision affect housing investment?

7.1 Introduction

The previous chapter examined in detail the nature of social housing systems in France, Germany, the Netherlands and the UK. From this chapter an understanding and analysis of the operation and workings of these social housing systems has been achieved. This chapter will look more specifically at indicators of social housing investment, and their value for making comparisons both between and within countries. It will discuss the extent to which social housing investment affects total housing investment and, in particular, examine the role that the structures of social housing provision discussed in chapter six can have in explaining housing investment levels.

7.2 Hypothesis and methodology

The relationship between the social rented sector and housing investment in the UK, France, Germany and the Netherlands, will be investigated with reference to the hypothesis stating that housing investment levels are influenced by the structures of provision in social rented housing. To expand this statement:

- i/ The overall support for social rented housing in a country may affect levels of housing investment by the way in which its structures of provision have been established.
- ii/ The effects of these structures of provision might be more significant in some countries than in others, which might provide a partial explanation for differences within Europe.

In relation to this hypothesis, the aim is to investigate whether any one system of social housing provision operates in such a way as to encourage more investment in housing. If more support is given to social housing in some countries by central and local government this may contribute to higher levels of total investment in a country overall. In addition a system in operation which attracts investment from other sources, such as private investors, together with government support may well lead to considerably higher levels of investment.

This analytical approach raises a number of questions. The first refers to how much, either in money terms or in number of dwellings built, does 'social housing' contribute to overall investment in each country? Secondly, how can government support in each country be measured? It could be through levels of spending on subsidies (which raises more questions about what to include), and/or how the government sets up support structures for social

housing provision. Finally, how can the effects of this support be evaluated in relation to levels of investment? These questions will be addressed below.

The emphasis will be on an examination of the structures of social housing provision in the four countries described in chapter six to determine their respective effects on investment in social housing and housing investment overall. It will do this by studying forms of provision, particularly in terms of their finance and management arrangements, in the sector for each country, in relation to the actual levels of investment generated under each system. This will explore the effects on investment *between* countries. The chapter will also examine, through an analysis of major policy and institutional changes in the past two decades whether structures of provision have had an effect on levels of social housing investment and total housing investment *within* countries in this period. A number of questions are therefore being asked in this section:

- 1) How do levels of social housing investment compare between countries?
- 2) Does the rate of social housing investment significantly affect levels of total housing investment?
- 3) Do structures of provision in social housing affect levels of social housing investment?
- 4) Can any conclusions be drawn about whether social housing structures of provision have a significant effect on housing investment levels in different countries?

For this analysis, a number of indicators of 'social housing investment' will be investigated. Where available, data will be examined for these indicators in each country and the degree to which they can be used as a basis for comparisons will be discussed. Data will be presented for two main indicators: the volume of money investment in social housing and the number of social dwellings constructed. Some further consideration will be given to the problem of definition. While this was introduced as a problem with respect to total housing investment in chapter three, it is necessary to address here the problems of identifying, in each country, a specific measure of 'social' housing investment. Some analysis of the data and comparative value of the indicators will be followed by an examination of the social housing systems and relationships to investment outcomes between countries, to address the research questions set out above.

7.3 Indicators of social housing investment

This section will examine two main indicators that may be taken to represent social housing investment: volume of gross fixed capital formation (or money investment) in social housing,

and the number of social dwellings constructed. Problems of data availability, which will become clearer in the analysis, are a severe constraint on such an investigation. Methods of data collection and their representation in national statistics will clearly reflect the organisation and institutional arrangements in each country. The diversity that exists in these arrangements between countries, illustrated in the descriptions given in chapter six, means that direct data comparisons could be misleading. Careful analysis of what is actually being compared will therefore be undertaken to ensure that these problems are minimised.

Definitions of social housing were given at the beginning of chapter six and differences in the public and private mix of both the organisations providing social housing and their financing arrangements, were discussed. For the purpose of data analysis in this chapter it has been necessary to take quite broad definitions of what is invested in social housing or the 'types' of dwellings being counted as social dwellings, so that a comparison between countries at certain points in time can be made. This clearly brings into question the validity of such comparisons and has links to criticisms levelled at such studies discussed in chapter six (section 6.3). It is accepted that there will be limitations to the comparisons. It may be necessary to conclude after analysing the sources available, that the quality of the data is not sufficient to determine the effects of social housing systems on social housing investment levels. However, this would not prove that such an analysis is not worthwhile, rather that alternative methodologies for this sort of investigation must be found. This research can be valuable in investigating an area not previously examined. Problems associated with identifying measures of social housing investment in each country are discussed below.

7.3.1 Volumes of money investment in social housing

Gross Fixed Capital Formation in residential buildings was initially introduced in chapter three as an indicator of housing investment. A full definition and discussion of this indicator was also given. Various national sources in France, Germany, the Netherlands and the UK have been examined to discover whether this indicator can be further broken down, and provide an estimation of 'social housing investment'. For the comparative purposes required this can be defined as capital investment in new dwellings and major capital improvements, that are directly subsidised, targeted and allocated to households on low incomes. This could include investment by both public and private investors in social dwellings, which might be for rent, ownership, or both.

To enable comparisons of GFCF in residential buildings data from the UN Annual Bulletin of Housing and Building Statistics was used. This allowed for comparisons under a common definition for each country. The UN's Annual Bulletin, or any known alternative international

data source, does not, however, break down this money investment data into social and private housing investment. Gathering data for this indicator has therefore relied on national government sources. These will now be examined for each country.

In France the 'Report on the National Accounts' produced annually by the national statistical department, INSEE, breaks down GFCF in dwellings by type of investor. GFCF represents investment in new dwellings and major renovations. This produces three categories:

- associations and non-financial organisations, private companies and financial institutions;
- households;
- other institutions, including finance companies, insurance companies, public and private administrations.

Within the first category a further breakdown giving investment by HLM organisations is detailed.

It was stated in chapter six that approximately 90 per cent of French social housing is constructed by HLM organisations. This means that a further 10 per cent of known social housing development is unaccounted for in this measure. It could in spite of this, still provide an approximation of investment volumes into the social sector.

In addition to the data produced by INSEE, a more recent study of French national accounts by the Housing Ministry produced new calculations on investment data in 'Le Compte du Logement' (French Housing Ministry, 1994a, 199b). This was also briefly introduced in chapter three, where details are given of the different accounting methods used to compile GFCF data. Le Compte du Logement also breaks down GFCF data to give an approximation of social housing investment under the same categories. However, due to different calculation methods, there are differences in the final data, from the two sources.

Data from INSEE reveals that approximately 30 million francs were invested in social housing in 1992 by HLM organisations. This makes up a relatively small proportion of total investment in dwellings, only 8.4 per cent (INSEE, 1992).

In Germany the national accounts give data on investment in house building and major renovations, but do not split these between private and public sectors, or by type of investor. Data from other national sources is also limited for this indicator. The umbrella organisation for social housing, the GdW, makes some calculations of its members investment in new build and major repairs. However, this data would not give a particularly accurate indication of social housing investment, because of the many other types of investor that exist. For example, private individuals and companies that invest in social housing but are not registered members

of the GdW. Other German sources give information on volume of subsidies or value of loans approved for social housing, rather than specific investment data (Statistisches Bundesamt, 1991). It can be concluded, therefore, that in terms of a money volume indicator of social housing investment, data in Germany is not sufficient to make worthwhile comparisons.

As in Germany, the national accounts and the Central Statistics Bureau in the Netherlands publish data on Gross Fixed Capital Formation in dwellings, and on total funds invested in new construction and major renovations. However, a further breakdown by type of investor, or in terms of social investment, does not appear to be available. This makes it necessary, again, to conclude that in the Netherlands, this indicator cannot be used for comparisons.

By contrast the UK data published in the Housing and Construction Statistics gives a clear breakdown of GFCF in housing between the private and public sectors. The National Accounts define the public sector as covering: investment in new dwellings and improvements in existing dwellings by local authorities, New Town Development Corporations and government departments. However, not included in the public sector for GFCF calculation purposes is investment by housing associations in social dwellings. Housing associations' development is classified in the private sector for accounting purposes. As discussed in chapter six (section 6.8.1) housing associations are playing an increasing role in providing new social dwellings. Construction data shows that the share of social dwellings built by housing associations has been increasing throughout the 1980s, to over 80 per cent by 1992 (DOE, 1993, p80). This would therefore be a significant omission in an indicator of social housing investment. Therefore, although sources delineate a public/private sector split in housing investment data, it would be unreliable to use this as an indicator of social housing investment in the UK because of the nature of the definitions.

The analysis of the money volume of social housing investment has shown that any sort of comparison would not be worthwhile due to a lack of data, and different accounting conventions between sectors. Only France has data available that could be used as an approximation for this indicator. The problems of definition and measurement are largely a function of different institutional arrangements. It can therefore be, significantly, concluded that based on the research undertaken and the sources available that the volume of financial resources going into social housing cannot be, a) measured satisfactorily and b) compared in a meaningful way between countries.

Significant benefits could have been gained from utilising a measure of Gross Fixed Capital Formation in social housing as an indicator. In particular, because in contrast to construction data, volume investment data includes an estimation of capital investment in major renovations

work, as well as in new construction. This is particularly relevant as improvement work has been increasing relative to new construction in recent years.

7.3.2 Quantity of social dwellings constructed

While it is difficult to measure volumes of money investment in social housing in a country, it will be useful to examine levels of social housing construction for the purpose of comparisons.

There will of course be many factors that must be taken into account in using this indicator for comparisons. These include, in particular, the quality and specifications of the dwellings built, and therefore the 'value for money' afforded by the particular investments. Direct comparisons in levels of construction can be misleading as proxies for the volume of resources going into social housing investment, because of these differences. In one country a set quantity of money investment may generate a greater, or smaller quantity of dwellings than in another country, because of the quality, size and type of dwellings built, or because of differences in housing production costs or the efficiency of the housing production process.

For example, it might be the case that in the UK greater value for money, or a greater number of dwellings for a fixed amount of capital investment is achieved than in other countries. Other research and data (see Oxley and Smith, 1993, p20; European Commission, 1993), has shown that dwellings in the UK (both newly built and those in the existing stock) tend to be smaller than in many other European countries. This might be one reason for low levels of money housing investment in the UK, established in chapter three. Other quality standards may also be 'sacrificed' to achieve this level of output (although the data refers to all dwellings, this situation can be seen as partly indicative of the social sector). In addition the UK still constructs fewer dwellings per thousand inhabitants than the other countries being examined. (This point is further elaborated in chapter three). These factors must be a consideration in the following analysis.

Before data is presented and compared some brief comments should be made about the definitions and data sources in each country.

Data on social housing construction in France has been taken mainly from the UN's Annual Bulletin of Housing and Building Statistics. Data from this source divides the number of dwellings constructed between public and private investors. The category 'public investor' represents state and local governments, at all levels, and other public bodies (including to non-profit making organisations providing low-cost housing such as HLMs). Included in this definition will be subsidised dwellings built for both rent and ownership. Most statistics in

national accounts tend to estimate housing authorisations or housing starts, rather than completions. UN data is used where possible and any gaps are supplemented by French national data sources.

The data for social dwelling construction in Germany reflects all dwellings completed that have been financed through one of the subsidy paths for social housing construction. All social housing constructed is channelled through one of these paths (as outlined in chapter six) and this is therefore a reliable indicator of investment levels in the sector. Social housing in Germany is defined in terms of its method of financing. The data in national statistics is therefore compiled accordingly, and not, as in other countries, by providing institution, or by tenure. This data therefore reflects a mix of non-profit and private investors of social housing, for both rented and owner-occupied dwellings.

Social dwellings constructed in the Netherlands are defined by the Central Statistics Bureau as those which are provided by municipal housing companies and housing associations. This includes dwellings built for social rental and social ownership. Further data was available that split dwellings in terms of their tenure and subsidisation status. However, it is not possible to clearly determine the 'social' nature, or provision, of these dwellings and the above definition will therefore be used.

Official data produced in the UK presents dwellings constructed by its provider and sector. For the purposes of this analysis, social dwellings are those constructed by housing associations and the public sector (this category includes social provision by New Towns, local authorities and government departments). The organisation of social housing in the UK means that a much clearer distinction is made in national statistics between 'social' and 'private' sector dwelling production. Most social dwellings constructed are destined for social renting. However, since the Right to Buy policy was introduced in 1980, a large proportion of those social dwellings constructed for rent, are now categorised in the stock of owner-occupied dwellings.

Thus, data on the construction of social dwellings does not represent exactly the same components in each country. This is mainly a factor of institutional differences in the organisation of the social housing sector. This means that some data is reflecting purely rental, or both rental and owner occupied social dwellings, and in addition may be provided by a number of different organisation types. Despite these differences the data presented below, does provide the best available estimates of construction levels of all social dwellings in each country. In the rest of this chapter these measures of social housing construction will be used as an indication of social housing investment.

7.4 How do levels of social housing investment compare between countries?

The data in Table 7.1 illustrates levels of social housing construction during the period 1970 to 1992. While these figures can give an indication of the quantity and trends in social house building in the four countries, their value for direct comparison is limited because of national differences in population size, overall levels of construction output and so on. It is therefore useful to present two further indicators that can be used for comparisons:

- 1) social dwellings constructed as a percentage of total dwellings constructed
- 2) the number of social dwellings completed per thousand inhabitants.

Table 7.2 shows the percentage of social housing construction in total housing construction. The figures, it can be argued, reflect clearly the changing commitment, particularly of governments, to social housing provision, with some countries experiencing significant increases and decreases in levels of building during the time period. Overall the data shows that there has been a decline in the percentage of social housing construction in all four countries. The extent of the decline does, however, vary. Some of the most dramatic changes have been experienced in the UK and in the Netherlands. In both of these countries the fluctuation in the level of construction devoted to social housing has been significant. At the beginning of this time period the UK had the highest level of social housing construction relative to total housing construction, with nearly 52 per cent of all new construction being in the social sector in 1970. Although there was a decrease in this level in the early 1970s social housing construction rose to a peak of over 54 per cent of all house building in 1977. In comparison to the other three countries the UK clearly had the highest average output rate in the social sector relative to total construction, throughout the 1970s. However, the level of social housing construction fell dramatically and continuously during the 1980s from 45 per cent in 1980 to 17.7 per cent in 1992. Thus while the UK began the period with a higher percentage of social construction than France, Germany and the Netherlands, by 1992 it had the lowest percentage of social sector construction.

As in the UK, social construction in the Netherlands was high in the early 1970s amounting to nearly half of all housing construction. Although this level fell back to about 30 per cent in the late 1970s, by 1982 construction in the social sector had doubled to 60 per cent of total construction. This was the highest percentage reached by any of these countries during this time period. During the early 1980s, however, new building in the sector gradually declined to a level of about 30 per cent. Despite the surge in social construction in the Netherlands in the early 1980s, the decline from 1970 to 1992 was much less significant than in the UK. Indeed in

Table 7.1: Social housing construction, 1970-1992

YEAR	number of dwellings			
	UK	GERMANY	NETHERLANDS	FRANCE
1970	187524	165135	56129	150100
1971	168162	195024	66349	155000
1972	130181	182247	72380	158900
1973	113557	126769	72547	121600
1974	134405	153380	60813	127600
1975	167408	153989	45873	
1976	169540	133847	39540	102700
1977	170188	113037	38538	122200
1978	136437	135311	32189	111200
1979	107771	108781	26400	92800
1980	110012	97175	43473	80800
1981	88046	92902	61876	78200
1982	53841	99613	74312	
1983	55995	104083	55212	75700
1984	54955	80408	53732	63400
1985	44186	68952	39741	68141
1986	38485	52066	40106	63600
1987	34970	40668	40649	56400
1988	34935	38886	43457	57600
1989	33921	65153	38597	43700
1990	35075	90704	31823	46500
1991	31725	93973	24300	56800
1992	31348	108474	27400	67400

Sources: UK-Housing and Construction Statistics, DOE, 1993; Germany-Statistisches Bundesamt, 1993; Netherlands-Ministry of Housing, 1994; France-United Nations, 1993, French Housing Ministry, 1992.

Table 7.2: Social housing construction as a % of total housing construction, 1970-1992

YEAR	FRANCE	NETHERLANDS	GERMANY	UK
1970	32.9	47.86	34.54	51.77
1971	32.58	48.57	35.14	46.14
1972	29.09	47.54	27.59	39.34
1973	24.3	46.68	17.75	37.28
1974	25.5	41.6	25.38	48.07
1975		37.98	35.25	52
1976	22.88	37.02	34.11	52.2
1977	27.09	34.7	27.64	54.18
1978	25	30.42	36.75	47.27
1979	23	30.16	30.41	42.8
1980	21.36	38.22	24.99	45.46
1981	20	52.54	25.42	42.61
1982		60.26	28.71	29.44
1983	24.1	49.68	30.54	26.79
1984	23.41	47.66	20.18	24.91
1985	26.52	40.5	22.1	21.25
1986	26.88	38.81	20.67	17.81
1987	22.49	36.92	18.71	15.45
1988	20.09	36.69	18.64	14.42
1989	16.49	34.73	27.3	15.33
1990	18.13	32.68	35.36	17.45
1991	22.18	29.32	28.3	16.59
1992	27.48	31.8	27.1	17.7

Source: own calculations from various national sources

Table 7.3: Social dwellings completed per 1000
population, 1970-1992

YEAR	FRANCE	UK	GERMANY	NETHERLANDS
1970	2.96	3.37	2.72	4.3
1971	3.02	3.01	3.18	5.03
1972	3.07	2.32	2.96	5.43
1973	2.33	2.02	2.05	5.4
1974	2.43	2.39	2.47	4.49
1975		2.98	2.49	3.36
1976	1.94	3.02	2.18	2.87
1977	2.3	3.03	1.84	2.78
1978	2.08	2.43	2.21	2.31
1979	1.73	1.92	1.77	1.88
1980	1.5	1.95	1.58	3.07
1981	1.44	1.56	1.51	4.34
1982		0.96	1.62	5.19
1983	1.38	0.99	1.69	3.84
1984	1.15	0.97	1.31	3.73
1985	1.23	0.78	1.13	2.74
1986	1.14	0.68	0.85	2.75
1987	1.01	0.61	0.67	2.77
1988	1.03	0.61	0.63	2.94
1989	0.77	0.59	1.05	2.6
1990	0.82	0.61	1.43	2.13
1991	1	0.55	1.17	1.61
1992	1.17	0.54	1.34	1.79

Source: Own calculations based on various national sources.

1992 the Netherlands was still constructing nearly twice as many social dwellings relative to its total housing output, as was the UK.

In contrast to the patterns of social construction in the UK and the Netherlands, France and Germany have maintained much more stable levels of social house building relative to total construction. Social housing construction in both countries was just over 30 per cent of total construction in the early 1970s. The percentage of social construction in Germany tended to be slightly higher than in France between 1970 and 1992, although there were cases, such as in the mid-1980s, where German social construction decreased below the level in France. Although some fluctuations in social housing construction are apparent in both countries during the time period, the difference in the level of output in the sector between 1970 and 1992 is negligible. Construction in the social sector fell overall by just 5 per cent from 1970 to 1992 in France, and by 7 per cent in Germany.

Between the countries different trends in social housing construction can be distinguished. France and Germany appear to have maintained a much more stable rate of social housing construction relative to total output, than the UK and the Netherlands. While the UK maintained the highest levels of social construction during the 1970s it declined to the lowest of the four countries during the 1980s. During the time period being examined construction in the social sector has clearly been the highest, overall, in the Netherlands.

Table 7.3 illustrating the number of social dwellings completed per thousand population reflects similar trends and patterns within the four countries taking into account the different sizes of their population. The data for the Netherlands does show, however, that relative to its population size social housing construction has been much more significant than in the three other countries. In the early 1970s the Netherlands was building almost twice as many social dwellings relative to its population as France, Germany and the UK. While this level fell somewhat in the late 1970s, the Netherlands maintained a higher quantity of social dwelling construction relative to its population size throughout the rest of the period to 1992. The high construction level in the social sector in the UK, apparent in Table 7.2, proves to have been less significant taking into account the size its population. The number of social dwellings completed per 1000 inhabitants in the UK is much closer to that of France and Germany, particularly during the 1970s. The decline in UK construction in the social sector during the 1980s is, however, equally noticeable. By 1992 the UK was constructing less than a half of the number of social dwellings per 1000 population built in France and Germany, and less than a third of that of the Netherlands.

Some explanations for these changes and differences in social sector construction are related to economic, demographic and policy effects that were examined in previous chapters. The extent of the effects of the different structures of provision will be examined in sections below.

7.5 Does the rate of social housing investment significantly affect levels of total housing investment?

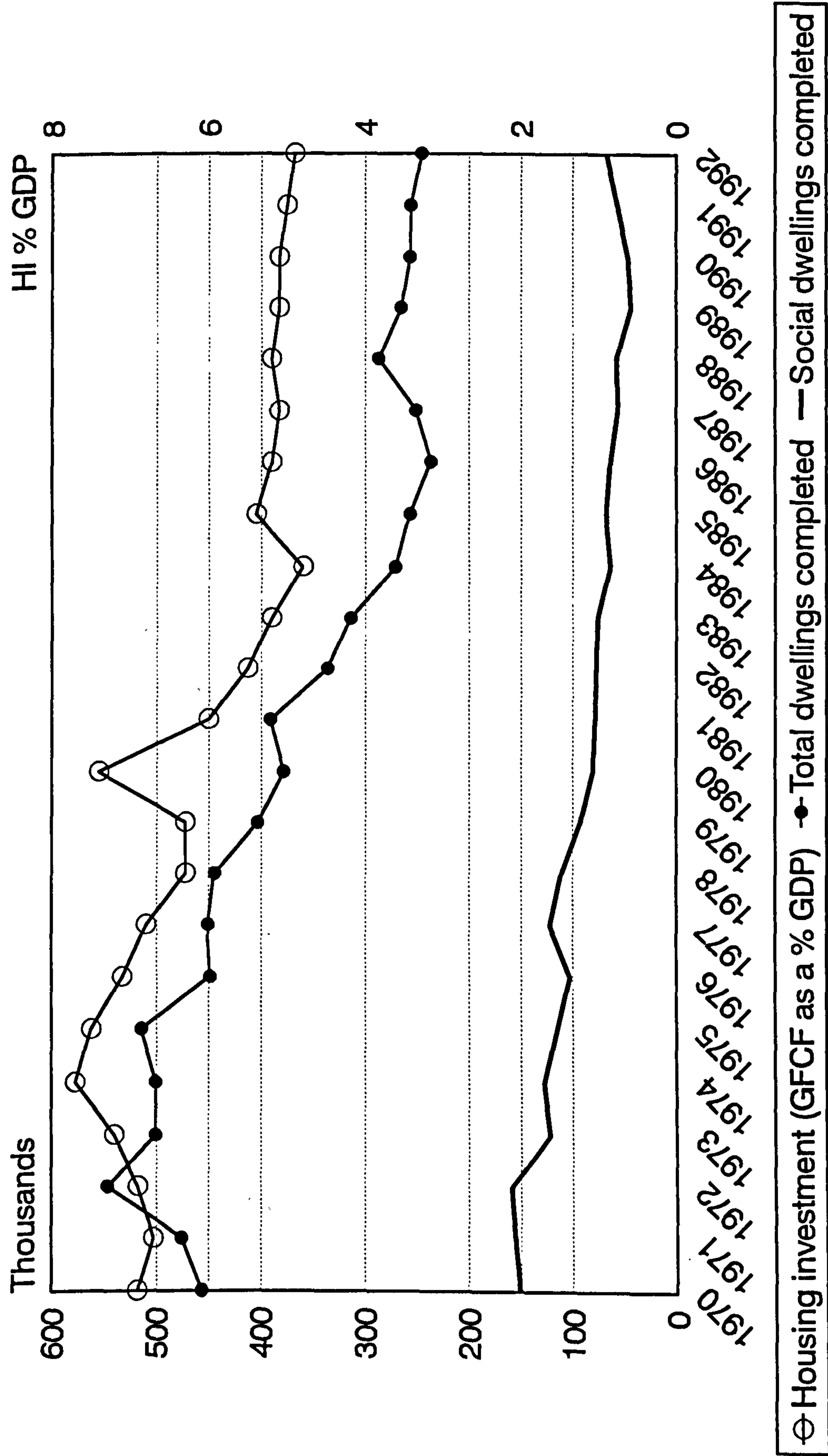
The previous section has presented and compared the respective levels of social housing investment in France, Germany, the Netherlands and the UK. In this section the extent of the effect of social housing investment on total housing investment will be examined. Establishing that the level of social housing investment can act as a determinant of housing investment can provide the grounds for the further investigation into this sector and its structures of provision.

Investment in social housing is a component of total housing investment and there will therefore clearly be a relationship between the two items. However, what is being examined here is the extent of that relationship within the four countries. For example, can evidence be found that a country having a larger social housing sector, or a higher rate of social housing construction, has a higher rate of total investment? In other words can it be shown that where more investment is attracted into the social housing sector there is as a result higher levels of total housing investment? If this were to be the case, it could be suggested that the social housing sector can significantly affect housing investment levels.

Figures 7.1 to 7.4 illustrate the respective levels of social housing construction (to be used as an indicator of social housing investment), levels of total housing construction and levels of housing investment as a percentage of GDP (both to be used as indicators of total housing investment), in the four countries being examined. These figures can be used to investigate the above proposition. While there are obvious limits in using a social housing investment indicator that takes account of only construction and not, in addition, improvement and renovation work, it is, as described earlier in the chapter, the best indicator available. By using two indicators of total housing investment social housing construction can be examined relative to both total construction and housing investment as a percentage of GDP.

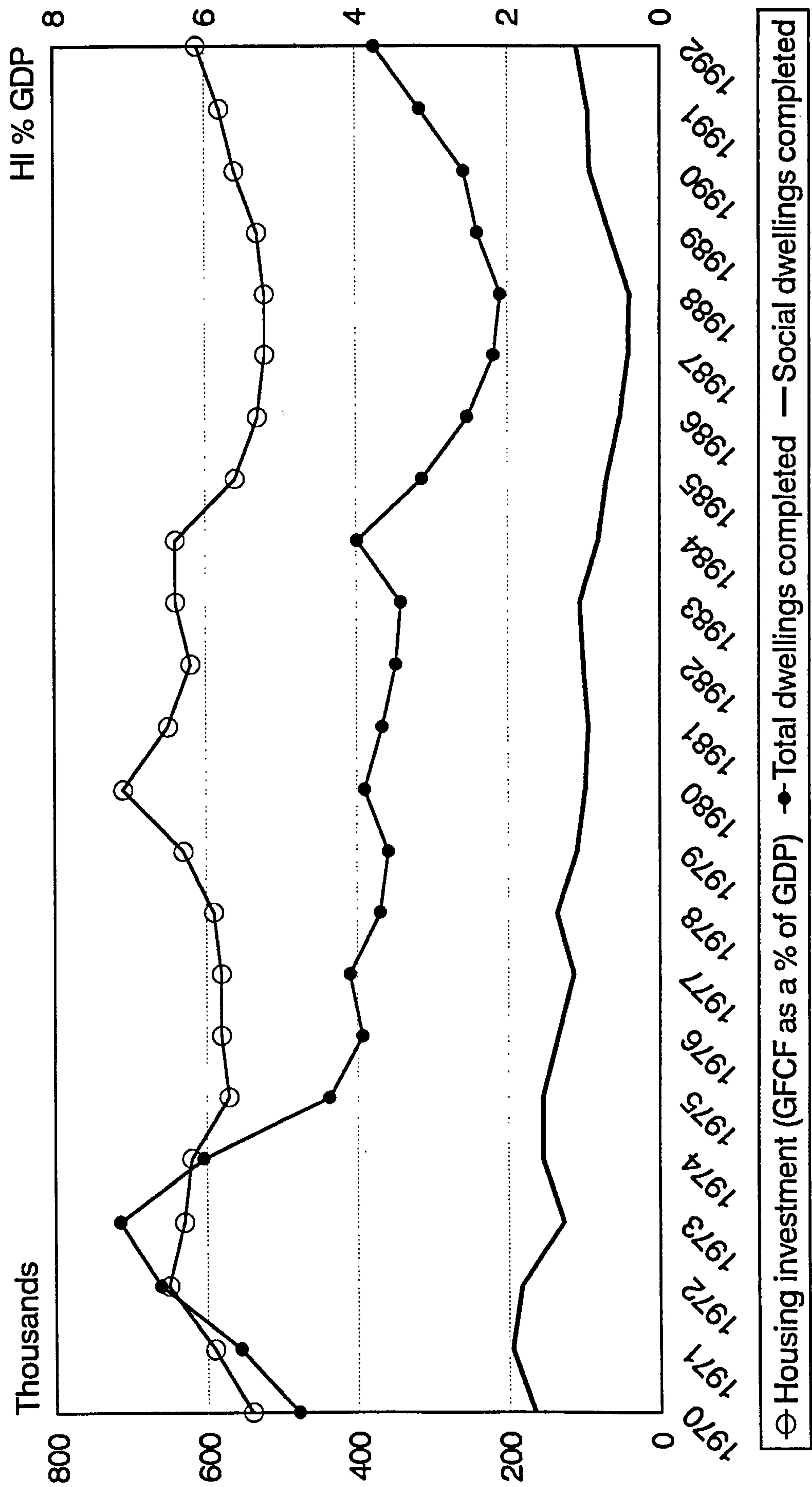
Differences in the overall trends in investment patterns are apparent both within and between countries. The figures reflect the greater volatility in social housing investment in the UK and the Netherlands, and a more stable trend in France and Germany. The trends shown for the two former countries do provide some evidence that a large amount of social housing construction can have a direct and positive effect on total housing investment levels. This

Figure 7.1: Social housing investment and housing investment, France, 1970-1992



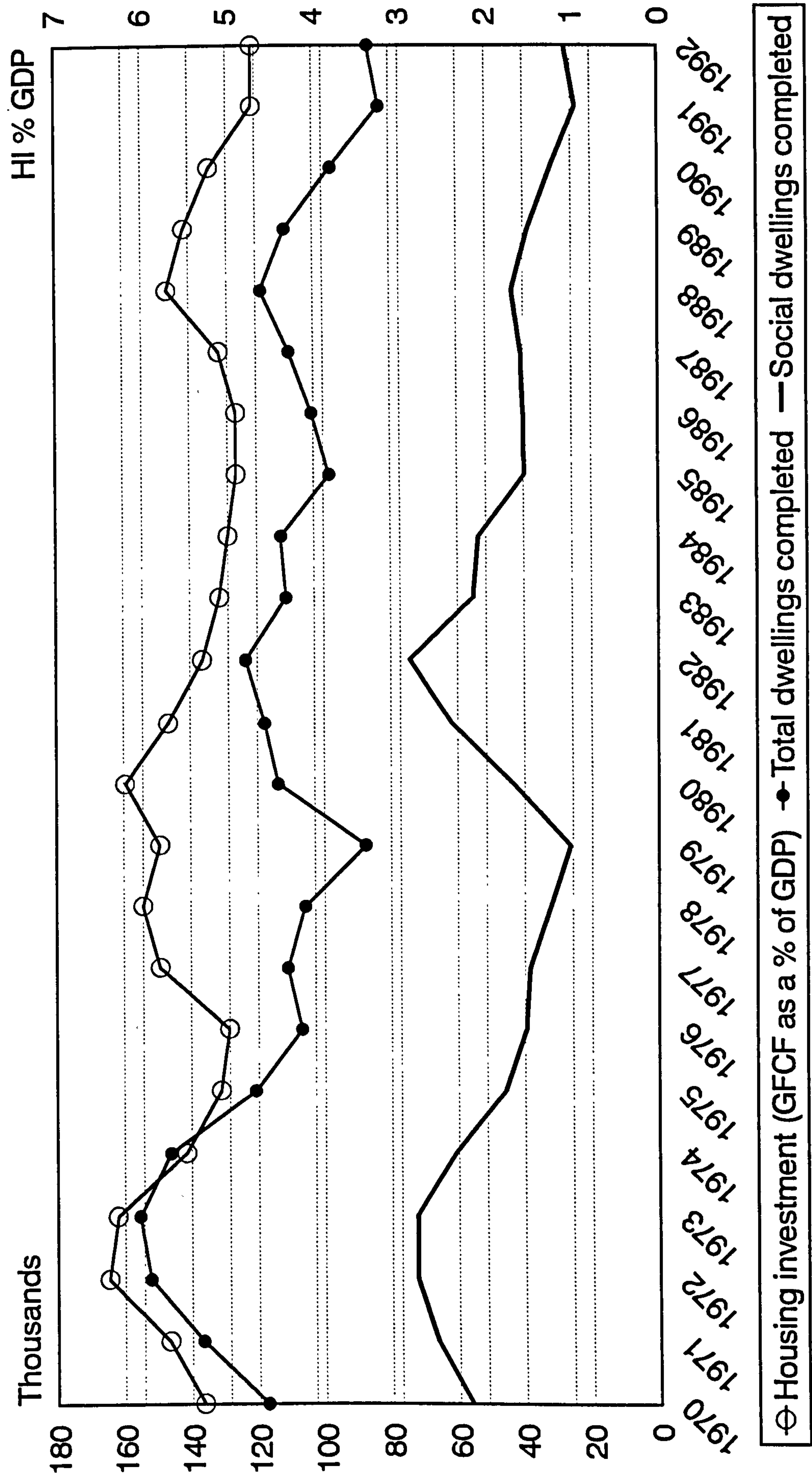
Source: United Nations (1993), French Housing Ministry (1992)

Figure 7.2: Social housing investment and housing investment, Germany, 1970-1992



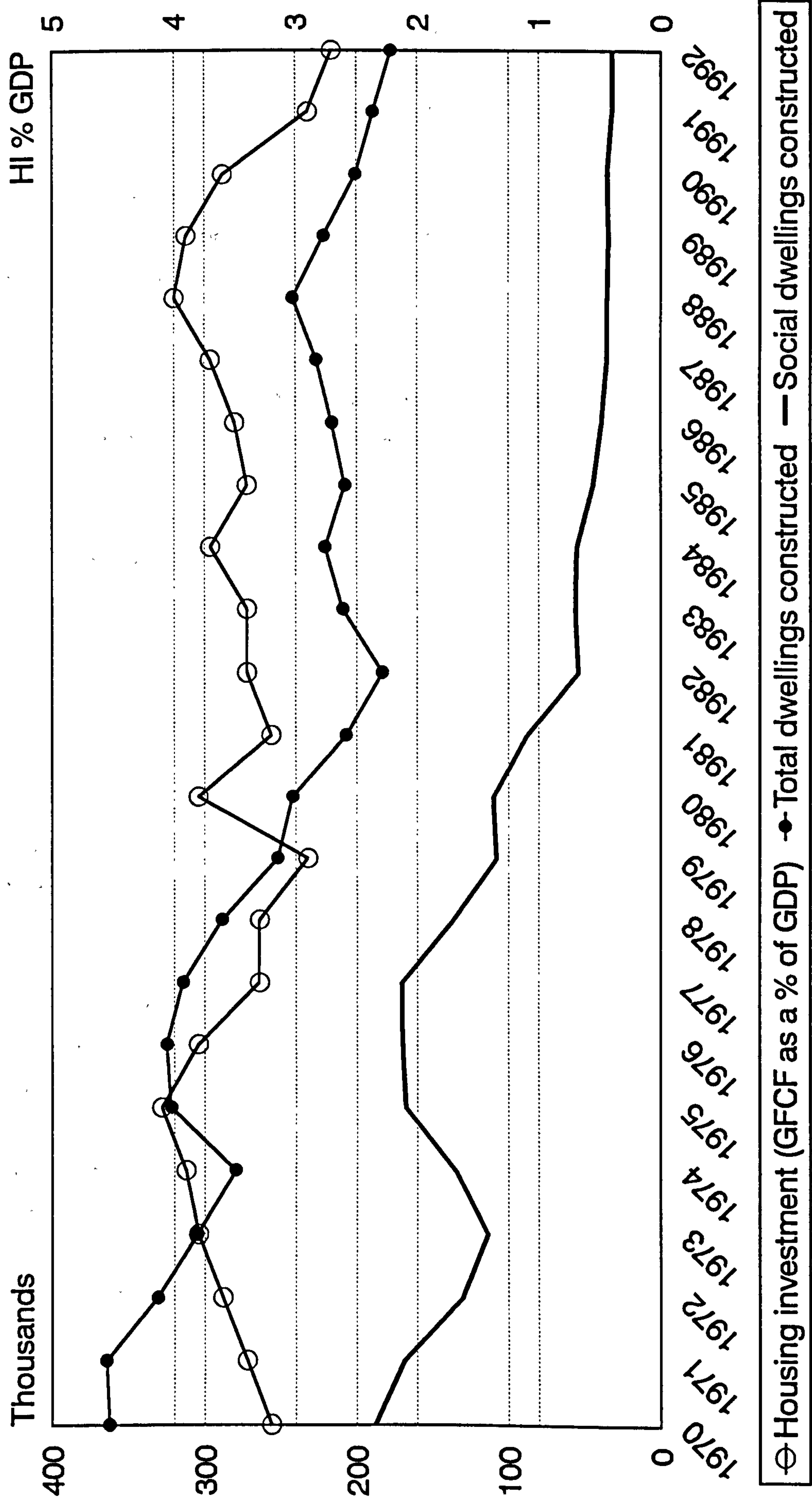
Source: Statistisches Bundesamt (1993), United Nations (1993)

Figure 7.3: Social housing investment and housing investment, Netherlands, 1970-1992



Source: Netherlands Ministry of Housing and Physical Planning (1994), United Nations (1993)

Figure 7.4: Social housing investment and housing investment, UK, 1970-1992



Source: DOE (1993), United Nations (1993)

trend can be seen in the Netherlands throughout the period and in the UK particularly in the 1970s, where specific increases and decreases in social housing construction are reflected more significantly in both housing investment indicators. In addition in France and Germany where the proportion of social housing construction has been somewhat smaller, there has been a proportionally smaller effect on overall investment levels. This is also true of the effects of social housing in the UK during the 1980s. This is in turn connected to the relative size of the social housing sectors in these countries. It is clear that where the social sector is larger there will be a greater proportion of investment (construction and improvement work) in the sector which will have a greater proportional effect on total housing investment levels than in countries with a small social housing sector.

Historically the UK and the Netherlands have had the largest social housing sectors of the four countries. Around 1970 just over 30 per cent of the UK's housing stock was in the social rented sector and in the Netherlands the social housing sector stood at about 35 per cent. By comparison in 1970 in France only 11 per cent of all housing was in the social sector. Data for Germany is not available until 1980 when just 18 per cent of the stock was social housing. Over time there has been a gradual growth in the social sector in France, Germany and the Netherlands, but a decline in the UK. However, data for around 1990 shows similar relationships between the countries in terms of the size of their social sectors. In France 17 per cent of the stock was social housing, in Germany 20 per cent, and in the UK 26 per cent, while the social sector in the Netherlands had grown to 40 per cent of the total stock. In the countries with larger social housing sectors one might expect higher levels of social housing investment. Even at times of low new social construction rates, higher rates of overall capital investment, for example in improvement and renovation work, might be expected because of the larger quantity of stock to invest in.

The figures for the Netherlands and the UK illustrate that it is not always the case that an increase in social housing construction leads to an increase in total investment. This may be because some increases in social housing construction may be counter-cyclical measures that are specifically introduced at a time of low private construction output. In chapter five there was considerable evidence for social housing construction being encouraged by governments to compensate for low levels of private output, and this was seen specifically in the UK and the Netherlands. In addition housing investment might increase at a time of stable or falling construction levels. This again may be due to increases in improvement and renovation investment in the social or other housing sectors. This relates to the issue of whether increases in social housing investment are making an addition to total investment or displacing investment from another sector (this issue is discussed further below).

It can be further seen that countries which have maintained higher levels of total housing investment (as a percentage of GDP) during the period, particularly France and Germany, have also had a relatively continuous and stable level of social housing construction. In comparison the Netherlands and the UK having somewhat lower levels of overall investment, have had more volatile social housing construction levels. While it would be difficult to draw specific conclusions on the basis of this observation certain links can be made here with the different countries systems of provision and housing policy types.

The differences between comprehensive and supplementary housing policy types were introduced in chapter five. It might be argued that those countries with a more comprehensive housing policy have maintained more stable levels of social housing construction as the level of government control has been broader and less direct than in countries with supplementary housing policies. This may have been the case, for example, in France and Germany. However, the Netherlands was also characterised as having a more comprehensive housing policy system and Figure 7.4 shows that social housing construction levels are far from stable in the Netherlands. This may be due to the fact that the social housing sector in the Netherlands has been used as a tool for bolstering private construction output or may be related to the more specific details of its system of social housing provision (see next section). There may be links with the more specific institutional arrangements in each country, such as with the different types of organisations that provide social housing and differences in the level of government control over social housing providers.

In chapter five it was argued that countries having comprehensive housing policies might have higher levels of investment because of the broad range of groups active in providing housing. This may also be the case in the social housing sector and this will be examined in more detail in the following section.

These comments illustrate that the nature of the relationship between social housing construction rates and investment rates is problematic. This is firstly, because estimates of renovation and improvement investment in the social sector are not included, and secondly, because rates of social construction can also clearly be affected by patterns of investment in the private housing market. However, it is clear that differences within the social housing systems and the level of respective social housing investment, have produced different outcomes in different countries. It does appear that the effects of social housing on investment levels is greater where the size of the sector is larger. In addition it is possible that the nature of the systems of social housing may be influencing patterns and levels of social housing investment. This will now be discussed in the following section.

7.6 Do structures of provision in social housing affect social housing investment?

The previous section has established some connections between social housing construction and investment, and total housing investment. This section can now examine in more detail how structures of provision in social housing might affect both social housing investment and total housing investment. It will investigate the affect of the systems of social housing provision both within the countries and between the countries. Much of this analysis will refer to the descriptions of the different social housing systems outlined in chapter six.

In discussing how changes in the structures of social housing systems affect levels of investment it is important to classify what is meant here by a 'structural change'. The difficulties of making a clear definition will become apparent in the sections below. However, as a starting point, the distinctions referred to in chapter two (section 2.3.2), between major and minor policy changes to the institutional arrangements in a housing system, may be used. In chapter two a major policy change was identified as a change in the apparatus of state or non-state housing institutions, which might affect their power and status. Minor policy changes were identified as housing policies that affect housing regulations such as distribution and control, or affect levels of financing and subsidies. Minor policy changes therefore take place within the existing housing system, while major policy changes alter the structure of the system. In this section there will be an emphasis on examining 'major policy changes' and their effects on housing investment.

The systems of social housing provision set out in chapter six are representative of the recent position in each country, (i.e. the early 1990s). These descriptions will be particularly useful to examine how different structures between countries might affect levels of social housing investment. Some considerable changes in the systems of provision have also taken place within countries during the period 1970 to 1992. These will now be examined briefly for each country in relation to changes in social housing investment levels.

7.6.1 Social housing systems and investment within countries

a) France

As shown above in Figure 7.1 social housing construction in France has been declining almost continually throughout the period 1970 to 1992. Figure 7.1 illustrates some fluctuation in the level of social housing construction in the early 1970s, before gradual decline set in particularly after 1977. Higher levels of social housing construction at the beginning of the period can be largely attributed to a continuation of large scale post-war construction in this

sector. As discussed in chapter five it was from the mid-1970s that it was thought post-war shortages had been met and the government began to think about introducing changes which would reduce public expenditure on housing construction. Housing policy reforms introduced in 1977 in France in line with this shift in thinking made significant changes to the structure of the housing system that affected social housing in particular.

The reforms of 1977 reflected the shift in emphasis in housing policy from object to subject subsidies and introduced the APL income related housing subsidy, described in chapter six (section 6.5.2(a)). At the same time and partly to pay for the introduction of housing allowances, there was a reorganisation of the system of state subsidised loans for social housing construction. Five existing types of loans available for financing social housing construction were withdrawn in favour of the new PLA loans (section 6.5.2(a)). However, it has been noted that, "the assistance provided by these new loans was much more limited than that provided by the loans in the former system", (Lefebvre, 1992, p6). This was partly because loans also had to cover improvement costs of bringing dwellings up to a higher imposed quality standard. The PALULOS improvement subsidy for social rented housing was also introduced in 1977, marking the shift from the quantity of new dwellings to the quality of the existing stock.

The aim of these policies was clearly to reduce investment in new construction and channel expenditure into housing allowances and improvement work. Certainly the rate of dwelling construction in the social rented sector seemed to decrease quite substantially as a result of the new finance structure. The major policy reforms of 1977, then, seem to mark a change in the structure of the finance system for social housing that has had a direct and long term effect on the level of investment in the sector. The decline in social housing investment was also reflected in a similar decline in total construction output and to some extent in housing investment as a percentage of GDP.

A further change to the system of provision in France was the decision to redistribute funds collected from the employers 1 per cent patronal scheme. As described in chapter six (section 6.5.2(a)) before the 1980s all funds collected were targeted to new construction, yet in the mid-1980s it was decided that half of the funds should go to help finance the increasing housing allowance bills. This clearly took financial resources away from capital investment and into demand side expenditure. While this redistribution of funds might be seen more as a 'minor' rather than 'major' policy change, there are clear implications for investment.

Many of the structural changes in the social housing system during this time have clearly been synonymous with the shift from the supply to the demand side in housing policy. In addition

many changes have been initiated as a result of giving an increased role to markets, and encouraging deregulation and privatisation in housing provision. This is apparent in the types of organisations providing social housing. In chapter six it was noted that prior to 1977, public bodies such as the OPACs or OPHLMs were the main providers of French social housing. However, after 1977 new construction by the SAHLMs tended to predominate. SAHLMs operate on a level much closer to that of private companies. Although they still provide low cost housing and receive government subsidies, they can make limited profits and tend to attract considerably more support from private companies. In comparison to the public managed HLMs they tend to be more autonomous and freer from government control. This shift in importance from OPHLMs to SAHLMs can be seen partly as a reduction in state intervention in housing provision and an encouragement of private initiatives.

Despite a gradual withdrawal of the state, and in particular, state financial commitment to production between 1970 and 1992, there has nevertheless remained a considerable degree of control and regulation within the social sector. This is illustrated by the role of the local governments representative, the *préfet*, in the operation of HLM activities. This degree of control has meant that social housing organisations can be strongly influenced by a government's political objectives. The greater autonomy experienced by some types of HLM bodies, noted above, is still subject to central government's financial budgetary control. In this respect it appears to be the case that in spite of some structural changes in the system of financing and provision, the central government is still ultimately controlling levels of investment in the sector. This is illustrated, for example, in the way in which social housing construction was increased in 1991 and 1992. By the early 1990s the government recognising problems of shortages in the social sector, made short term increases to the number of subsidies available for social housing construction loans and introduced a number of new loans to counteract problems of segregation and marginalisation. This has clearly led to an increase in construction levels. While social housing bodies may have some increased financial autonomy, a major problem that is preventing an increase in their investment is how they can maintain their social aims while using market means to provide housing.

b) Germany

Figure 7.2 shows that while the level of social housing construction was significant in the early 1970s it has been in gradual decline throughout the 1980s. There has been some increase since 1989. In a similar way to that of other European countries, much of this decline since the late 1970s has been due to a shift in housing policy and a concentration on improvement work and personal allowances rather than on new construction. However, in Germany there were few major policy changes relating to the operation of the social housing finance system. The system as described in chapter six was largely consistent between 1970 and 1990. The fall in

construction in this sector was associated more with a gradual decrease in public subsidies through the various financing paths, in favour of encouragement and expenditure on the owner occupied sector and housing allowances, than a result of structural changes affecting the social sector investment rate.

The way in which subsidies for investing in social housing are available to any private individual company or organisation, whether as a non-profit or limited profit making venture, suggests a very open and market orientated system of provision. Investors are still constrained, however, by the availability of government subsidies to build social housing. The reduction of central government subsidies for new social housing since 1983 and their complete withdrawal from 1985 up to 1989, had a most significant effect on construction levels. Although increasing construction costs and their translation into higher rents in the sector also had a contributory effect. This overall decline was also reflected in the total construction and housing investment as a percentage of GDP trends, shown in Figure 7.2. During the time period when the federal government was not providing subsidies for social housing construction a major policy change was introduced. A third subsidy path was initiated, to be financed wholly by the Länder governments. This was implemented with the aim of compensating for central government cuts. Indeed the introduction of the third subsidy path did go some way to preventing a complete halt in new provision in the social sector. It may be seen as a change in the system that has had a positive effect on construction and investment levels (albeit in a time of general decline in levels of social housing investment).

The increase in German social housing construction since the late 1980s was, however, related more to increasing government subsidies than to any changes to the system of provision. For reasons discussed in chapter six the government re-introduced its subsidisation of construction in the social sector in 1989 and began a short-term programme of increasing public funds to social housing. This has had a direct and significant effect on construction levels. In Germany, it appears that 'minor' policy changes affecting levels of housing payments and subsidies have had a much greater effect on social housing construction levels than 'major' changes to the structure of provision.

As in France, certain changes were also made to the organisation of bodies providing housing to reflect a more market orientated approach. The removal of the Public Good Law in 1990 (see chapter six, section 6.6.1), meant more and more social housing providers operated like commercial organisations, and they face similar conflicts in aims to their counterparts in France.

Overall, it appears that Germany, more so than France, had a constant structure of housing provision in this sector during this period, perhaps with the exception of the introduction of the third subsidy path. Patterns of social housing investment appear therefore to have been influenced by factors other than changes to this structure.

c) Netherlands

Social housing construction in the Netherlands was considerably more volatile between 1970 and 1992 than in France and Germany. At the same time, for reasons discussed earlier, its effect on total investment appears to have been much greater. High levels of social housing construction continued into the early 1970s during a building boom in most sectors. After 1973, however, several changes were introduced affecting the social sector. For example, the 1974 White Paper introduced an increasing emphasis on improvement work and reduced subsidies for new construction. A general housing allowance scheme was also introduced in 1975. The new system of calculating rents, that affected the social and private rented sector, also reduced incentives to invest in rented housing. All of these factors led to a reduction in new social construction which was reflected in both indicators of housing investment around the mid-1970s.

Social housing construction continued to decline throughout the 1970s but then increased dramatically around 1979. The main reason for this sudden turnaround was the collapse in the erstwhile booming private house building market. The lack of confidence in the private sector and increasing demand for rented housing led the government to substantially increase supply side subsidies for the social sector, although there were no reforms to the structure of the social housing system at this time.

However, into the 1980s the government was again anxious to cut public expenditure on housing. In the social sector this resulted in higher rents and reduced levels of housing allowance payments. As the government switched its support to promoting the owner occupied sector, construction levels in the social sector seemed to suffer the most. Subsidies for social construction were cut substantially in the early 1980s, and went hand in hand with a much greater emphasis on privatisation in the housing sector. Along with other measures of decentralisation, local authorities were given responsibility for undertaking the sale of parts of their social rented housing stock. The sale of the social stock was fairly limited in the Netherlands, particularly in comparison to the UK, but this policy illustrated the change in emphasis away from social renting to owner occupation by the government. Some further structural changes were made to the finance arrangements for social housing and these reflected the increased emphasis on privatisation. In particular there was the introduction of the Social Rental Sector Guarantee Fund in 1984 which was set up, with the aid of

government, to help housing associations obtain loans from the capital market. The introduction of this guarantee fund, and a further Central Social Housing Fund in 1987, may have helped to stabilise construction during the mid-1970s. These new institutional arrangements reflect 'major' policy changes to the structure of the housing finance system.

A further significant initiative took place in the mid-1980s with respect to housing associations social housing construction loans. In 1985 an agreement was made between the government and housing associations, whereby high interest government loans could be exchanged for private market, low interest loans for social housing construction. This was carried out so that housing associations could take advantage of low interest rates on the capital market, and also so that the government could reduce its role in funding social housing and encourage the use of the private market. Housing associations benefited, not just from low interest rates on private market loans, but also because they were still able to receive government subsidies for social housing construction. This early repayment of government loans, low interest rates on new loans and continued help in the form of construction subsidies during the 1980s, put housing associations in a very strong financial position. Large quantities of funds were saved and significant gains made when government loans were repaid. The financial strength of housing associations has continued since the mid-1980s and had a significant impact on their success in attracting funding and maintaining construction levels, as government support was withdrawn.

From 1988 there was a continuous decline in social housing construction levels. This can be largely attributed to changes in housing policy and in the system of social housing finance introduced in that year. Indeed, Figure 7.3 illustrates that total dwelling production and housing investment as a percentage of GDP also experienced decline from 1988. The 1988 White Paper put an increasing emphasis on the market and privatisation. Loans for social housing construction were to be obtained from the capital market and the government would provide only limited subsidies for construction. The 'switching' of public for private loans for social housing construction led to the situation whereby the continued success of associations to provide new housing was connected very strongly to future rates of interest.

The changes in finance and subsidy policies clearly caused problems for associations into the early 1990s, and led to increased rents and lower rates of construction. However, in spite of this, social housing construction rates in the Netherlands continued at a high level in the late 1980s and early 1990s, particularly when compared to France, Germany and the UK. Major structural changes to the system of provision in the Netherlands do appear to have had positive and negative effects on social construction levels, but have not been as significant as changes in government subsidy levels.

d) UK

Figure 7.4 illustrates how social housing construction levels in the UK have changed dramatically during the period 1970 to 1992. The difference in construction rates between the 1970s and the 1980s is particularly significant and can be attributed to a large extent to changes in the way that the social housing system was controlled around the end of the 1970s. High levels of social housing construction were maintained by local authorities, supported by central government grants, in the first half of the 1970s. However, even during this time changes were being introduced that affected the social sector. Controls on the borrowing powers of local authorities and reductions in subsidies limited the ability of local authorities to finance construction. Construction levels suffered as a result of the increasing emphasis on improvement work and greater public expenditure being devoted to housing allowances. Although social housing construction increased in the mid-1970s under a Labour government, there was an increasing shift towards the promotion of owner occupation.

The 1977 Green Paper on Housing Policy embodied many of these changes in policy direction. As a result of this policy review local authority Housing Investment Programme's (described in chapter six, section 6.8.2) were introduced as a new system for controlling local authorities ability to borrow and, it was initially argued, linking borrowing permissions to need. This gave local authorities the responsibility for formulating policies locally, although they were still constricted within central government policy and finance frameworks. This has been seen as a decentralisation of housing policy (Boelhouwer and Heijden, 1992, p189). However, in reality it meant a reduction in control over levels of investment for local authorities as all spending was to be approved by central government. Within this structure, and as a consequence of the economic crisis in the mid-1970s (chapter five, section 5.4.1), the necessary reduction in public expenditure hit the social sector particularly hard. Social housing construction declined dramatically from 1977/78 which is clearly illustrated in Figure 7.4. The reduction in social house building was perhaps connected less to the change in the financial structure of the social housing system than to the government aim of cutting public expenditure. Although there were no significant changes in the structure of the social housing system, there were significant changes in the way the government 'used' the existing system.

The HIP system introduced by the Labour government was intended to be a more effective way of allocating public expenditure to where it was most needed. In 1979 the Conservatives took over this structure but used it in a different way. They used the HIP system as a means of controlling (limiting) total capital expenditure on housing by local authorities, by cutting their overall borrowing permissions. By using the system in this way additional and substantial cuts

were made to public expenditure, and as a result new social housing construction by local authorities was increasingly limited.

The introduction of the Right to Buy policy in 1980 also reduced substantially the role of local authorities in the housing market and epitomised the government's concentration on the owner occupied housing sector. It was also significant that the government put severe limits on the local authorities' ability to use the Right to Buy receipts for new investment. A significant cause of the government's tight control over the local authority borrowing limits was that all housing capital investment counted towards the Public Sector Borrowing Requirement (PSBR) in the UK. This system of national accounting in the UK, introduced in the mid-1970s, differs from all other OECD countries and has proved to be a major restriction on growth in the sector (Murie, 1994, p80).

From the early 1980s the housing association sector has been promoted as the main builder of new social housing. Development by housing associations was originally supported generously by the government with high percentages (80-90 per cent) of Housing Association Grant (HAG) towards the costs of provision. However, from 1989 government grants for construction were reduced (down to 62 per cent of costs in 1994/95) and housing associations were expected to obtain more and more capital funds for construction from the private market (Aughton and Malpass, 1994). This greater market role in social housing has particularly since the late 1980s, caused severe problems for the UK housing associations. Housing associations in a short space of time had to face considerable changes in their funding regimes, and with small associations in the UK and no help in the form of guarantee funds, their ability to attract funds and keep rents at a 'social' level has become increasingly limited.

In relation to the systems of financing local authorities and housing associations, it may be argued that although the structure of the systems did not change considerably, the way that the government used the systems, by changing the borrowing powers of local authorities and varying HAG rates, did.

The overall decline in the social sector during the 1970s and 1980s must be seen in the context of a heavy commitment, by both major political parties, to the promotion of owner occupation. There has been a concerted effort to switch the emphasis of new housing production away from the public to the private housing sector, in line with the belief that owning one's own home is a basic and natural desire. Public rented housing came to be seen as a sector that existed for those unable to afford their own homes. Changes in the social housing system and the support of the sector clearly reflect this political direction. In addition much of the change in social housing during this time is associated, as in other countries, with the shift from supply

to demand side subsidies and the greater emphasis on quality than quantity of dwellings. In the UK there does seem to have been a greater effect of 'minor' policy changes on investment levels rather than 'major' structural changes to the system.

e) Summary

Within the countries examined above it does appear that there are a number of different factors that affect social housing construction and investment rates. Changing structures in social housing systems do seem to have had some effect on construction levels in this sector. However, what seems clearer is that the respective governments played a more significant role in influencing changes in levels of investment. This can be seen in the way that the structures and systems of provision are changed, or used differently, by governments to enable them to implement new policies, and also in the way that construction levels are so directly affected by changes in government subsidies and borrowing permissions (in the case of the UK) to social housing. Major structural changes implemented by governments in all four countries have shifted money from supply to demand side subsidies, increased improvement work and decreased construction in the social sector and increased the market role in provision. These have all had a significant impact on social housing, marking a significant decline in the sector over the past twenty years.

In examining the effects of social housing systems on construction and investment levels it is clearly difficult to define exactly whether a change in structure has taken place with the implementation of a particular policy, or whether there has been a change in emphasis within the existing structure. It is apparent throughout the above sections that many of the policy changes that have affected social housing construction levels are 'minor' policy changes, concerned with changes in regulation, distribution and subsidy levels. During this period there has been less emphasis on 'major' policy changes that have changed the apparatus of housing institutions or their powers.

The role of the structures of the systems of social housing provision within countries is difficult to establish and social housing investment is clearly affected by many other factors. However, the different systems of social housing may be able to provide a better explanation for differences in social housing investment between countries. This will be examined in the next section.

7.6.2 Social housing systems and investment between countries

The data in Figures 7.1 to 7.4, has shown that commitment to social housing investment has been quite different in France, Germany, the Netherlands and the UK. Between the four

countries the level of social housing construction as a percentage of total construction has, historically, been highest in the Netherlands, and in the UK up to the early 1980s. France and Germany have had a lower overall rate of construction in the social housing sector which has gradually been declining since the late 1970s. There are a number of perspectives that can be examined within the structures of social housing provision in these countries, which might provide some explanations for differences in social housing investment levels. Initially, examining how the role of the welfare state in social housing has shaped the structure of provision and how it has reflected an attitude of consensus or commitment to housing and social housing policy. In addition, how the role of government within the current social housing system and its different institutional arrangements, might affect social housing investment outcomes. Finally, how differences in the institutional arrangements of the social housing sector, particularly current arrangements in the early 1990s, might influence differences in investment levels.

Chapter five discussed how the social, economic and political histories of France, Germany, the Netherlands and the UK respectively shaped their different forms of welfare intervention in housing. The role of the welfare state in the different countries can be seen particularly in the attitude of the state towards social housing provision. Between the four countries the commitment to housing varies considerably, and relates back to very early housing development issues. Some countries have seen housing as a more important social and political issue than others. This is particularly true of the Netherlands and France compared to the UK. This is reflected to some extent in the levels of social housing investment in each country. Those countries with a greater commitment to the social housing sector tend to have higher levels of investment.

In addition, in countries where the welfare state has a higher status, the government is more likely to acknowledge public pressure with respect to problems in the social housing sector. This was the case in France, for example, in the late 1980s and early 1990s. The increase in social housing at this time was partly a response to such pressures, but also because HLM organisations had a significant amount of influence in policy making. This relates back to the discussion which classified housing policies as supplementary or comprehensive (see chapter five, section 5.2.2). Lundqvist describes one characteristic of a comprehensive housing policy as a country where there is a higher degree of 'mobilisation among affected interests'. The influence in France of HLM organisations and indeed public pressure, appear to reflect this higher level of mobilisation. This might be linked, in France, to the higher degree of autonomy allowed to implementing structures in housing provision (particularly to HLM's), which is another of Lundqvist's characteristics of a comprehensive housing policy. It was mobilisation and public pressure such as this which, it might be argued, helped to bring about the

introduction of the Right to Housing Law (1990) and the Loi d'Orientation de la Ville (1991), as described in chapter six, section 6.5.

This level of mobilisation might contrast with, for example, the UK where housing interest groups and the general public have a relatively low impact on policy decisions. While there have been significant calls in the UK, particularly from interested groups in housing provision, to find ways of increasing support for social housing, there has been little impact on government decision making. Calls for increasing support to the social sector are not answered by a British government where housing has a relatively low priority and in an economy where the market must be seen to prevail. Differences in housing between France and the UK characterised in this way might provide a partial explanation for lower levels of housing investment in the UK than in France.

The 'status' of the social rented sector is also subject to the degree of political consensus that exists in a country. Significant benefits to the sector can be seen in countries where support for social housing is largely accepted across all political parties. In France, Germany and the Netherlands there tends to be a greater degree of consensus and support for the structure of the housing system. In particular there is more agreement between parties on the importance of the housing issue, even though they might have alternative means by which they achieve goals. This is partly related to the nature of the political system and the tendency for coalition governments (especially in Germany and Netherlands). Historically, it could be argued that this type of system has achieved a greater degree of stability in the social sector in these three countries particularly in comparison to the UK. Greater stability in the structure and support for social housing can have a significant effect on the success of the sector as a whole. It could be argued, for example, that a sector reflecting greater political continuity can make longer-term policy decisions which deal with problems more effectively.

Certain problems have continued in the UK, for example, due to a series of short-term policy initiatives which do not reflect a commitment to the sector, but are connected more to the party political system of government. Housing policies, particularly in the social sector, have often been caught up in party politics and used as a tool for winning votes rather than as a means of improving housing conditions. This could provide an additional explanation for lower levels of total housing investment in the UK, than in the other three countries. This was certainly true of social housing investment during the 1980s.

Commitment to social housing may also be linked to the structures of provision in other sectors. It could be argued that the higher level of social housing construction in the Netherlands has often been a result of the inability of the private housing sector to maintain

construction levels. In the post-war period in the Netherlands the financial circuits were not sufficiently well established to respond to the need for large quantities of house building. A larger commitment to the social sector was made by establishing a system of provision that could respond to need and demand when necessary. In other countries such as the UK, the establishment of a comprehensive system of social housing provision was not deemed as important because the private sector was more firmly established and could respond to housing demand. Harloe and Martens, for instance, note that, "In the Netherlands owner occupation is less firmly established and social rented housing less marginalised than in Britain" (Harloe and Martens, 1985, p1076). This is reflected in a higher overall commitment to social housing investment in the Netherlands than in the UK.

Together with its overall commitment to social housing provision, the government can also affect social housing provision by the role it plays in the actual system of provision. Differences in the government's role might also provide an explanation for differences in social housing investment between countries. The degree of central and local government control, monitoring and influence over social housing bodies varies considerably between different countries. This is shown in the details in the previous chapter. The role of government can be characterised in a number of ways.

Governments play a role in setting up different structures which may in turn limit or encourage further investment. Evidence of this was seen in earlier sections. It is clear that governments have made changes to the finance systems of social housing, in particular, during the past twenty years. However, while some policy changes increased the level of private sector investment in social housing finance, particularly in the Netherlands and the UK, this has not resulted in an overall increase in social housing investment levels. During the 1980s, privatisation and an increasing market role in social housing has been a way of reducing, rather than supplementing levels of government expenditure. Therefore an increase in the number of funding sources for social housing construction has not necessarily resulted in an increase in investment or production, but has instead redistributed financing from the government to other bodies.

It is apparent, however, that finding new funding sources has been made easier in some countries than in others. For example, UK housing associations have had considerably more difficulty in obtaining private funding due to the small size of most associations and high risks for lenders, and lack of familiarity with the sector by private financiers. In the Netherlands, some of the risk is removed with the operation of guarantee funds backed by the government. In addition housing associations in the Netherlands are in a much stronger financial position than they are in the UK. Guarantee funds also operate in France and Germany to back social

construction loans and this improves access to private finance. More investment might be attracted into the social sector in the Netherlands compared to in the UK because of the presence of guarantee funds and the financial stability of housing providers.

Social housing bodies and agencies exist to organise the provision and financing of social housing. The degree to which the state is involved in the running of these bodies will determine how much continued influence it has on their overall policies. For example, bodies could be set up in the form of a governmental agency, or even a government department, that relies wholly upon the state for funding and has limited opportunities for independent initiatives. Alternatively, organisations may be set up that have the backing of government but act as autonomous bodies making independent decisions with respect to providing and financing social housing. In the most 'extreme' case the government may leave all detailed decision making to the market taking no responsibility for any specific arrangements (but may still have some monitoring role or lay down guidelines).

As seen in chapter six, the types of bodies providing social housing in the four countries differ considerably, as does the monitoring role of government. The ownership and management of social housing in the UK by local authorities has meant that the sector has had a high level of direct control from both local and national housing policies. In France, central government's representative in the départements, the préfet, has a supervisory, and quite influential, role with respect to the HLM's. In addition, the municipalities exercise considerable influence over the funding, management and allocation of HLM dwellings. In the Netherlands the non-profit housing associations have in the past had a degree of autonomy which has led to a considerable amount of independence from the government, although some form of monitoring has always existed. In contrast, social housing providers in Germany have historically been relatively free of government monitoring once subsidies have been allocated. This may be partly due to the difficulty in monitoring such diverse groups of social housing providers.

While one type of social housing provider has not necessarily resulted in higher or lower rates of social housing investment, it is clear that where government control is high there is much less difficulty in implementing changes. Where an organisation has more autonomy there is greater opportunity for that organisation to retain control over its interests. This could be a significant explanatory factor in differences in social housing construction between the UK and the other three countries during the 1980s. While all countries made significant cuts to their supply side subsidies in the social sector, the UK has clearly gone the furthest in terms of relative construction rates. It may be the case that the additional degree of control afforded by the central government in the UK over the local authority providers, rather than the more

independent bodies in other countries, has made this possible. Ultimately, the power of government with respect to the funding of social housing provides considerable control.

Differences in the specific institutional arrangements for financing social housing are also apparent in the four countries. An examination of Figures 6.1, 6.3, 6.4 and 6.5 in chapter six reveals significant differences in the social housing finance systems between countries. These might in part be attributed to the way in which the 'structures' of provision have developed in each country and the degree of government control and commitment in the sector. Comparing the four countries, it is France that appears to have the greatest number of institutions, other than the state, that have been created to provide financing for social housing construction. France is unique in having a major institution (the CDC) that finances social rented housing construction using funds from the general public's savings (chapter six, section 6.5.2(a)). While construction subsidies from the government are added to make up construction loans to social housing bodies, there is a large degree of freedom from government intervention and control in this system. One problem with the operation of funds from the CDC is that it is reliant on interest rates on savings and other comparable investments. Two other French institutions, the CFF and the CIL (also described in chapter six) also have non-state funding sources. The existence of these different 'independent' institutions in providing funding for social housing which are not present in the other three countries, could provide an insight to the more stable level of provision in France.

In Germany, while a significant proportion of funding for social housing comes from individual investors, supplemented by subsidies from one of the 'subsidy paths', there are no other specific finance institutions in operation in the social housing sector. This still leaves a large degree of control over social housing investment with the different levels of government, including the Länder, and their decisions regarding subsidy levels.

As the discussions above have illustrated there is an increasing switch in emphasis within the systems of housing finance in the UK and the Netherlands. While in both countries the emphasis was, up to and during the 1970s, on the role of the government in social housing finance, during the 1980s there was an increasing reliance on the private capital market. This is reflected in Figure 6.4 with the introduction in the Netherlands of guarantee funds for backing capital market loans.

The different ways in which the social housing finance systems and their institutional arrangements affect social housing investment levels is clearly linked to the discussion above on the degree of government control in provision. In many ways the institutional arrangements in each country tend to provide examples of the way the government sees its role in social

housing provision, and the way it intervenes to carry this out. The creation of the different finance institutions in France, for example, might be seen as a significant long-term commitment to the provision of social housing.

Some of these differences in institutional arrangements and levels of government control can provide some explanation for social housing investment differences between countries. However, it is clear that a significant part of any explanation lies with the overall degree of government commitment to the social housing sector.

7.7 Can any conclusions be drawn about whether social housing structures of provision have a significant effect on housing investment levels in different countries?

The analysis of structures of social housing provision both within and between countries provides some conclusions regarding their effect on housing investment levels. However, earlier sections of this chapter have shown that making definitive conclusions using an analysis relating to the social housing sector are difficult. Difficulties are related particularly to finding a definition of the social housing sector and social housing investment in four different countries for making comparisons. As discussed earlier social housing means different things in different countries and a social dwelling may vary between countries in its quality, specifications and 'value for money'. The distinctions used in this chapter as a basis for comparisons have been clearly set out and discussed. However, it is clear that limitations must exist and conclusions cannot be all-encompassing or universally applied.

In addition there are difficulties in focusing on just one sector. It has been clear in the analysis that government commitment to all sectors affects investment. In many cases an increase in investment in one sector is a response to falling investment in another sector, and an attempt to maintain overall construction levels. In these cases increases in social housing investment may be diversions of housing investment from another sector rather than additions to total investment. A further significant factor in analysing the social rented sector has been changing government commitment to different tenures. The increasing emphasis on owner-occupation, to varying extents, in all four countries has resulted in a reduction in investment in social renting. With an awareness of these difficulties some concluding remarks can nevertheless be put forward.

This chapter has illustrated changing trends in social housing investment during the period 1970 to 1992 and examined the extent of influence this has had on overall investment levels. Section 7.5 highlighted a number of factors that played a role in determining social housing

investment. Systems of social housing provision and changing structures within each country have had some effects on levels of social housing construction and housing investment. The effects of social housing systems have, however, been different between countries and within countries.

Within the four countries a number of similar patterns can be seen in changing structures and policies in the period 1970 to 1992. The major shifts in housing policy during this time, such as the shift from the 'quantity' of dwellings produced to the 'quality' of the existing stock; from supply-side to demand-side subsidies and the cuts to public expenditure in housing, have all affected housing investment and the social housing investment in particular. The housing policy changes have manifested themselves through different policy measures in different countries. For example, in France structural changes were made to the system of financing social housing in the late 1970s; in the UK changes were made to the way in which the existing system was 'used' from the early 1980s; in the Netherlands changes were also made to the social housing finance system during the 1980s. There have clearly been different policy responses, in terms of the 'major' and 'minor' policy changes discussed earlier, to similar situations in each country. In some cases the way in which a country has responded and the type of policy instrument it has used may be partly reflected in the extent of the effect on social housing investment.

This can be seen, for example, in the way in which a switch to private finance for social housing construction was implemented in the Netherlands and the UK. In both countries pressure on public expenditure on housing led to an encouragement by government of private financing for social housing construction. In the Netherlands new structures, in the form of guarantee funds, were put into place to aid access to the capital market as public funds were withdrawn. This may have had some effect in maintaining social housing construction levels in the late 1980s. In contrast the government in the UK gradually reduced housing association grants (HAG) and restricted local authority borrowing for construction, but provided no help with respect to obtaining private funding. The significant decrease in social housing construction during the 1980s may be seen partly as a reflection of this action.

Within countries there have been, however, many other contributory factors to changing levels of social housing construction. These have included the effects of private sector housing development, the prevailing economic situation and the influence of government. Structural changes to the social housing systems, where implemented, have largely been responses to the shifts in emphasis in housing policy during this time. It can be concluded that within countries it is these government policy shifts that were the root cause of any 'major' structural changes, and which had a greater effect on social housing investment and housing investment overall.

Between countries it is clearer that the structure of the system of provision and the way in which the state and non-state housing institutions operate, can provide partial explanations for differences in the levels of social housing investment. The development of the welfare state and the degree of commitment, consensus and control exercised by government over the social sector have all contributed to the creation of different systems of social housing provision in different countries. These differences can be seen in the types and forms of housing policies and the different institutional arrangements for providing social housing. The degree of autonomy institutions have, and their public/private mix, was shown in previous sections to result in different levels of social housing investment. Where social housing investment was generally high, i.e. in the Netherlands, there was a stronger commitment to the welfare state and housing in general. In the case of the Netherlands, even when state subsidies were withdrawn the government maintained a role through the backing of guarantee funds. In addition countries where social housing bodies and funding institutions were freer from government control, social housing construction and investment overall has tended to remain more stable. This is particularly true in France, and to some extent in Germany. By comparison it appears to have been much easier for the government to control and reduce social housing investment where it maintains a high level of control over the main providers. This can be seen in the UK in relation to local authority providers of social housing.

The analysis in this chapter has shown that it is clearly very difficult, and probably not particularly worthwhile, to separate completely the effects of government and the effects of structures and systems of provision, in an analysis of housing investment determinants. While some evidence has been found of systems of social housing provision having an effect on investment levels, the nature and extent of those effects are clearly very much linked to government, the welfare state and the types and forms of housing policies in different countries.

Chapter 8: Conclusions: housing investment and comparative housing research

8.1 Introduction

This study aimed to investigate the determinants of housing investment. It has examined trends in the levels of a number of different housing investment indicators during the period 1970 to 1992 in four European countries. It has put forward and examined a number of hypotheses that might explain housing investment levels. This has been a comparative housing study examining and comparing the effects of certain factors on housing investment in France, Germany, the Netherlands and the UK. To facilitate this extensive work a methodological framework incorporating an integrated approach to comparative housing research has been adopted. This approach was a key factor in enabling the examination of a broad range of factors determining housing investment.

This chapter brings together conclusions from this comparative analysis. It will discuss and evaluate results from the six hypotheses that examined housing investment determinants. It examines these results and suggests factors that might have determined housing investment levels both *within* and *between* countries. It will consider whether information can be used to advise on how to increase housing investment. In the light of these results the value of using an integrated methodological approach for investigating housing investment will be re-evaluated. It will state what the results of examining the hypotheses have contributed to existing knowledge about housing investment and to comparative housing research.

8.2 Discussion of results: examination of hypotheses

It has been acknowledged that investigating all possible determinants of housing investment is beyond the scope of this study. Six hypotheses were put forward that might have provided partial explanations for the different housing investment levels within and between countries. Hypotheses one to four were examined using statistical analysis, and hypotheses five and six used a more qualitative approach. The results from examining each of these will now be discussed in turn.

Hypothesis 1: Housing investment levels are a function of overall investment levels in a country. Differences in housing investment between countries can be explained by differences in total investment levels.

The results from examining the determining role of total investment indicate that, as theory suggested, there is some relationship to housing investment. However, the extent of that relationship varies. For the data on France and Germany the statistical testing suggested a slightly stronger relationship between investment generally and housing investment than for that of the Netherlands and the UK. In France and Germany housing investment appears to be more closely associated with total investment. Housing investment in France and Germany has been the highest of the four countries during the period 1970 to 1992. France and Germany are generally higher investment economies and this is reflected in the statistical relationships discovered.

Although relationships between the two factors in the Netherlands and the UK were not as strong as in France and Germany, the testing suggests that total investment in an economy is significantly associated with levels of housing investment in all four countries. However, even where significant relationships were discovered it was clear from the results that an examination of total investment can only provide a partial explanation for housing investment.

Theory discussed in earlier chapters suggested that housing investment might be explained mainly by factors related to overall investment in an economy. Were this to be the case the study might have shifted from a housing study to an investment study. It is clear from this analysis that the statistical relationships found are not strong enough to offer a complete explanation of housing investment levels. While this hypothesis might be accepted as a partial explanation for housing investment levels, further housing related issues clearly also needed to be investigated.

Hypothesis 2: Housing investment levels are related to levels of economic growth in a country. Different levels of housing investment are therefore due to differences in rates of economic growth.

Results from the testing of economic growth and its effect on housing investment make it difficult to make specific conclusions about the relationship. There was a wide degree of variation in the results between the specific variables used in equations and between countries. The data for France did suggest a statistically significant relationship between growth and housing investment, but for the other countries results were not consistent enough to make firm conclusions. The data for Germany, for example, indicated a negative relationship between growth and housing investment. Some theory discussed in earlier chapters did support other studies that had also found a negative relationship between the two factors. Therefore the results of the tests based on the German data are not necessarily invalid. More specifically the overall results may point to economic growth playing a stronger determining

role vis-à-vis housing investment levels in France, than in other countries. If housing investment in France is more responsive to economic growth, this may be because the nature of the French economy and housing structures means that economic growth is transferred more readily into housing investment than in other countries.

On the other hand, inconsistencies in the testing might suggest that problems exist in the formulation of models. It could be that a variety of time lags need to be incorporated into the economic growth variables. Although inconsistencies exist in the results for this variable it does not necessarily suggest that economic growth does not influence housing investment, but rather that the results from the statistical testing of this hypothesis suggest that economic growth is unlikely to offer a complete explanation and that one cannot be conclusive about the effects of economic growth on housing investment.

Hypothesis 3: Housing investment levels can be explained by demographic factors. Different rates of demographic growth in different countries result in different levels of housing investment.

In examining the effects of demographic growth on housing investment levels two variables were examined: population growth and growth in the number of households. Different time lags were also incorporated into equations. Theory suggested that household growth might have a greater effect than population growth on housing investment. The results of the testing showed that different combinations of variables and time lags have different effects in different countries. This is not surprising as different economic structures and housing systems mean that housing investment is affected differently in each country.

For example, in France and Germany the strongest relationship between demographic factors and housing investment was found using population growth with a four year time lag. In the Netherlands, however, significant relationships were found using population and household growth with two and four year lags. The more significant results for the Netherlands indicate that demographic factors have a stronger statistical relationship with housing investment than in the other three countries. While there was some variation in the results there was clear evidence that demographic factors do play a role in determining housing investment levels.

Hypothesis 4: Levels of housing investment are influenced by the size of the dwelling stock in a country. Differences between countries can be explained by relative housing stock sizes.

The results from testing the relationship between the size of the dwelling stock and housing investment indicators are the most conclusive and consistent of all the statistical hypothesis

testing. There is a clear and strong statistical relationship between the size of the dwelling stock and housing investment. Statistical results indicate that the theory holds that the bigger the housing stock relative to population size the lower the level of housing investment. This might have important implications for explaining housing investment levels.

In addition to these four hypotheses some variables were tested together in multi-variable models. Investigating the 'need' model and 'need and growth' model produced a large degree of variation in the results. The combined effects of variables are more difficult to analyse. Some combinations of variables worked better in some countries than others. It was also apparent that this depended partly on which time lags were incorporated in the variables, suggesting that different time lags need to be used in different countries. While some equations tested tended to support the hypotheses and produced the expected results, the degree of variation put limits on the extent of conclusions possible from testing these models.

Hypothesis 5: Government and housing policies have a direct effect on housing investment levels. Differences in housing investment levels between countries are a reflection of differing forms of government intervention in housing.

There were a number of factors relating to the influence of government that were examined. These included the effects of welfare state development, the role of government intervention and control in housing, the increasing role of the market in housing provision, and specific housing policies. All of these factors were shown to have considerable influence in housing investment outcomes.

Analysis has shown that differences in the development of the welfare state in each country have resulted in differences in the structural forms of housing provision and housing systems that have been established. This historical development has been reflected in the types and forms of housing policies (such as comprehensive or supplementary housing policies) that have been implemented, which may in turn have had some effect on levels of housing investment. The effects of structures in housing systems on housing investment was examined in more detail in hypothesis six. The classification of welfare states into different regime types also provided a further insight into differences in levels of investment. On the basis of analysis it could be argued that those countries having a 'corporatist' regime type have tended to invest more in housing (i.e. France and Germany), particularly in comparison to those countries having a 'liberal' regime type (i.e. the UK).

These conclusions are, however, dependent on the acceptance of the value of the 'comprehensive/supplementary' and 'corporatist/liberal/social democratic' classifications. These classifications have been shown to have some, but only limited, value.

Government intervention was shown to be particularly strong in affecting housing and also housing investment in the post-war period in all countries. Analysis has shown that the gradual reduction in housing investment during the period 1970 to 1992 may be partly a factor of the changing nature of government intervention during this time. A shift in emphasis in housing policies and reductions in public expenditure for housing production have clearly had some effects on falling levels of housing investment. These shifts in policy include: the emphasis on the quality of existing dwellings rather than the quantity of dwellings produced, the switch from producer to consumer subsidies, the increasing role of the market and privatisation in the provision of housing, and reduced levels of government expenditure on housing production.

Over time within countries housing policies were shown to have a considerable effect on changing levels of housing investment. Many of the policies that have influenced housing investment relate to the changes in emphasis discussed above. This changing nature of policies has affected housing in all four countries, albeit at different times during the period and through different policy measures. Cuts in supply side subsidies and public expenditure have led to cuts in housing construction in all four countries between 1970 and 1992.

The investigation of hypothesis five showed that other factors have also affected housing investment. In particular an important relationship exists between the prevailing economic conditions in a country and governments economic policies and the level of housing investment. Economic recession has played a significant role in housing market slumps and lower levels of housing investment in many countries. This suggests, in spite of the inconclusive results from the statistical testing on the economic growth variable, that economic factors and economic policies do play a role in the determination of housing investment.

In addition to the state of the economy some external factors, which have resulted in changes in government housing policies, have also affected levels of housing investment. These include, in particular, the factors which have led to increases in housing production in Germany following reunification and an increase in immigration.

Governments clearly play a significant role in determining housing investment. The evidence therefore tends to support the above hypothesis.

Hypothesis 6: Housing investment levels are influenced by the structures of provision in social housing systems. Different structures of social housing provision in different countries result in different housing investment outcomes.

An examination was carried out of the effect of social housing systems and institutional arrangements on social housing investment in the four countries. Any subsequent effects on total housing investment were then investigated. Levels of social housing investment clearly have an effect on housing investment. However, it was shown that this effect is particularly significant where the social housing sector was large or levels of social housing construction were high.

An examination was made of the effects of structures in social housing provision on housing investment. Links to the effects of government were noted as the development of the welfare state was shown to have resulted in different structures of provision. The analysis of structures of provision on investment was separated to examine its effects both within and between countries. Within countries there was shown to be some effect of changing social housing systems over time on housing investment, but the effects of government control and housing policy decisions were shown to be more significant. The shifts in emphasis of housing policies discussed in the above section appear to have had a considerable effect on the social housing sector in particular.

Between countries different structures of social housing provision appear to have had a much stronger effect on housing investment levels. Significant differences in structures were found between countries. These included different institutional, managerial and financial arrangements in social housing provision and different levels of government control, regulation and market/state mixes in provision, different levels of commitment and consensus in relation to housing and housing policies. All of these factors have to some extent contributed to differences in levels of housing investment.

Difficulties were encountered in distinguishing the effects of these factors, independently, on social housing investment, and also in how changes in social housing investment have been translated into different housing investment levels. It is clear, however, that there is a considerable cumulative effect of these factors which tends on balance to support the hypothesis.

The hypotheses that have been examined here and the results that have been produced can lead to some significant explanations for differences in housing investment levels. It has clearly

been difficult to establish the nature and extent of some of the relationships between determining factors and housing investment. However, some conclusions can be made regarding their value as partial determinants. The statistical testing suggested that total investment, demographic factors and the size of the housing stock all have a role in explaining housing investment levels. The economic growth variable was less conclusive, but economic growth may still have an effect on housing investment. Later analysis showed that economic conditions do play a role in determining housing investment levels. All of the statistical testing still, however, revealed a residual element which suggests that other factors also determine housing investment. The two further hypotheses that were examined went some way to identifying further factors that explain, in part, this residual element. These included: the development of the welfare state and the different structures that were established in housing systems as a result, the strong effect of government housing policy decisions on housing construction and improvement work, and the different forms of housing policies implemented. In addition, the structures of provision in social housing systems were seen to have some effect on differences in housing investment levels between countries.

8.3 Comparative summary of housing investment determinants

While examination of the above hypotheses suggests that several factors may determine housing investment, the effect of each factor tends to vary within and between countries. In the introduction it was noted that different countries might not necessarily have common determinants of housing investment. In the period examined similarities and differences have been found in housing determinants within the four countries. While there are many similar trends in the effect of some determining factors, others have had quite different effects on housing investment. In addition the results show that some of the factors that influence differences in levels of housing investment *between* countries are different to those that influence housing investment *within* countries. Further comments on these differences are made below.

8.3.1 A comparison of housing investment determinants within countries

In earlier chapters data for the four countries being examined showed that while housing investment has declined in most countries, trends and fluctuations have varied in the period 1970 to 1992. Many of these fluctuations have been caused by similar factors in the four countries. Economic conditions in particular have played a common determining role in each country. Economic recession resulting in private housing market slumps have had a similar negative effect on housing construction and housing investment levels in France, Germany, the

Netherlands and the UK. There were more concerted efforts in some countries to increase subsidised housing construction at these times to stabilise production levels. Subsidised housing construction was increased to counter private market slumps particularly in France and the Netherlands.

In addition to the negative effects of recession, housing investment was aided by stable economic conditions or periods of economic growth. A booming economy encouraged private housing construction in all countries at different times between 1970 and 1992. The effects of a boom-bust economy on housing investment does, however, appear to have a greater effect where the housing market is linked more strongly to the state of the economy. This was particularly true in the UK in the late 1980s and early 1990s.

A further common determining factor of housing investment has been the effect of housing finance and subsidy policies. All countries have witnessed changes in emphasis in housing subsidy policies which have resulted in similar effects on housing investment. Specific increases in housing construction have often been the result of increases in housing subsidies to promote production.

Tenure policy has also had some effect in each country. Between 1970 and 1992 there has been a growing emphasis on owner occupation and some increases in housing investment can be associated with increasing private sector development. This has often been encouraged by government policies. This was seen particularly in the Netherlands, Germany and the UK.

Together with these 'common' elements, some changes in housing investment can be attributed to events or factors particular to certain countries. These include, for example, demographic forecasts in the mid-1980s in Germany that predicted a declining population. This produced a lack of confidence in future housing demand and a subsequent fall in housing construction levels. In contrast, a later German census in 1987 indicated a large shortage of dwellings compared to the number of households and this, along with other factors, led to the re-establishment of subsidies for social housing construction. Perceived shortages also played a determining role in increasing housing subsidies and production in France during the 1980s as housing became a greater priority.

In addition other external factors have influenced housing investment in Germany. The re-opening of eastern European borders and the reunification of Germany had a huge effect on the housing situation in Germany through high levels of net immigration. The increasing demand for dwellings from new households has clearly had a positive effect on housing investment levels.

The statistical testing also revealed different relationships between determining factors and housing investment in different countries. From the results it appears, for example, that while levels of total investment had some relationship to housing investment in all countries this relationship was particularly significant in France and Germany. Demographic growth also appeared to have some influence on housing investment in all countries, but the strongest statistical relationships were found in the case of the Netherlands. Housing investment in the Netherlands may respond more positively to changes in demographic growth than in the other countries. The effects of the size of the housing stock was significant in all countries, but was particularly important in Germany, France and the UK. The results from this testing therefore suggest that in some circumstances the same factors have different effects in each country.

8.3.2 A comparison of housing investment determinants between countries

The analysis of results of the statistical testing cannot explain fully differences in levels of housing investment between countries. However, the qualitative analysis has illustrated that differences in levels of housing investment between countries can often be attributed to different determining factors than those discussed above within countries. The data illustrating levels of housing investment given in chapter three indicated, in particular, that housing investment has been consistently lower in the UK compared to the three other countries. This was true of the period 1970 to 1992, but has also been the case since 1955 (see Figure 5.1, chapter five). France and Germany have historically had a relatively high level of investment in housing. While housing investment in the Netherlands is just below that of France and Germany, it has historically had one of the highest rates of dwelling completions relative to its population size.

Many of the causes of these differences in levels are related more to the long term historical development of the housing system and structures, and government attitudes to the housing sector, than to specific prevailing economic and housing policy measures that might have been implemented in the short-term. The qualitative analysis has shown that differences in levels of housing investment between countries can be attributed to a number of factors. These include patterns of welfare state development, how structures of housing provision have been established and the role of government in housing provision. It is apparent that those countries where the welfare state has historically had a higher status have also had a greater ongoing commitment to housing and housing investment. Even though greater market orientation has been introduced into housing systems, where housing is given a higher priority and greater commitment and consensus is afforded, higher levels of housing investment prevail. This appears to have been the case in France, Germany and the Netherlands in comparison to the

UK. The relatively low level of housing investment in the UK may be partly due to an absence of some of these attitudes. It might be argued that housing has not had the priority in the UK that it has achieved in other countries. However, earlier discussion also pointed to the nature of the party political system and its effects on housing and housing investment levels. The party political system in the UK does not promote continuity and long term policy making. Housing has often been an area that has suffered from manipulation by different political parties. In addition policies in the UK have tended to be much more tenure orientated than in other countries. It might be argued that the issue of increasing resources going into new production and improvement work has been less significant in the UK than tenure orientated managerial reforms. This might have also contributed to the lower level of investment in housing.

A further factor that might have influenced differences between countries is the different institutional arrangements and forms of housing provision. For example, countries that have established systems and institutions that operate more independently from government control and use a variety of different public and private sources for funding have the potential for having higher and more stable levels of housing investment. This can be seen in Germany in the wide range of investors in social housing, and in France in the social housing finance arrangements. The UK, in comparison, has historically relied much more on public expenditure for social housing provision, although this has changed especially since the late 1980s.

Differences in levels of housing investment between countries clearly tend to be related to complex and long term structural differences in housing systems. Having examined the determinants of housing investment in more detail as they relate to differences within and between countries, the section below will examine how this information might be used to increase housing investment.

8.4 How can housing investment be increased?

This study has shown that a large number of factors can play a role in determining housing investment. However, it is important to emphasise that while a number of factors may each play a contributory role in determining housing investment, it is a combination of all these factors that results in differing levels of housing investment. From the results of the analysis it might be argued that housing investment is likely to increase in times of favourable economic conditions, or where there is a significant increase in demographic growth, or where levels of housing subsidy to production are increased. However, it has also been shown that housing investment may increase when any one of these factors is not favourable and even, say, in

times of economic recession. There is clearly not any single factor that can guarantee to influence housing investment in a particular way. A combination of social, economic and political conditions and institutional arrangements *together* explain housing investment outcomes.

Sustained housing investment in any country has less to do with implementing any single housing policy reform, but rather, a commitment to long term decisions by government to put in place policies and structures of provision that encourage housing investment.

Governments play a central role in determining future levels of housing investment. What would be needed initially, to increase levels of housing investment, is the acknowledgement by a government that housing investment and its consequences for housing standards and the quality of life are important. A long term commitment by a government to housing investment can be realised in higher levels of housing investment. More specifically this might mean a redistribution of some resources into supplying and improving housing. This might be done through changes in taxation and subsidy policies in all housing sectors, or by changing institutional arrangements to attract additional and independent funding. If more funds are to be attracted from the private capital market for housing production there might be a need, for example, to reduce risks for investors. To sustain increases in housing investment, changes might be necessary throughout the housing supply process, from land policy and planning arrangements to tax incentives for new construction. A greater commitment to long term policies to encourage housing investment would itself be a positive action. If a government promotes a higher level of continuity in the housing sector, the long term confidence of potential investors is likely to increase significantly.

8.5 Implications of findings for underlying theories and concepts

In investigating the six hypotheses set out in the first chapter of this thesis a number of different underlying theories and concepts have been tested. While of the effects of the findings as they relate to housing investment have been discussed, it is clear that the findings hold some significance for those original theories and concepts used. The theories and concepts discussed in chapter two provided the basis for deriving the six original hypotheses. The findings from testing these hypotheses can therefore inform some of these theories and their value and relevance to an examination of housing investment. This section therefore addresses the question, what can the findings of this work tell us about theories of housing investment?

In examining the six hypotheses a number of different theories of housing investment were tested. The implications of the findings for each of these will be examined in turn. The first four hypotheses investigated a number of economic and demographic theories of housing investment. As discussed in chapter two many of the theories used do not relate strictly to housing investment, but are more concerned with explaining total investment in an economy. Limitations therefore arose immediately in that theories of *total* investment were being adopted and, in some cases, adapted for this study.

The first hypothesis investigating the relationship between total investment and housing investment was not related to any specific behavioural economic theory. It was examining how far a causal relationship between total investment and housing investment existed in determining housing investment levels. Results showed a significant relationship, but illustrated that other factors also played a role in determining housing investment. The nature of this hypothesis means that there are not specific implications for any underlying theory, but that this was a useful hypothesis to test to establish empirically an expected relationship.

The testing of hypothesis two involving the economic growth variable did, however, have a clear grounding in economic theory. Theory discussed in chapter two (see Black, 1982; Kuznets, 1973) suggests that investment increases in times of economic growth. These theories were generally, however, related more to levels of total investment than housing investment. Other studies that examined the relationship between building investment and economic growth found conflicting and sometimes confusing results (Ball and Wood, 1994; Aschauer, 1989; De Long and Summers, 1991). Only one study (Burns and Grebler, 1977) was found that had tested economic growth and housing investment. The Burns and Grebler study did find economic growth (growth of GDP per head) to be a determinant of housing investment. The somewhat erratic findings of the statistical testing in this thesis mean, however, that conclusive comments in respect to underlying theory are difficult to make. The wide variation in results for this variable means it is very difficult to state with any degree of certainty whether or not the theory holds. As such it is clear that the implications for testing this variable are that both the hypothesis and the methodology need to be much more carefully couched to obtain meaningful results from statistical analysis. This might involve a greater consideration of how housing investment might be determined by economic growth. It may be that increases in economic growth will not affect housing investment immediately, but at some point in the future. It may take time for the effects of economic growth to work through the economy and the housing system before housing investment increases. In this case lags of two, three or even four years may need to be incorporated in the statistical analysis to find the nature of the relationship between the growth variable and housing investment. These suggested changes to the methodology of investigating the economic growth variable do not,

however, imply that the underlying theory is incorrect, merely that theory cannot be informed in any concrete way by the existing findings.

The third hypothesis examined the effects of demographic growth on housing investment according to theories of need and demand. Theory suggests that an increase in household or population growth will lead to an increased need and/or demand for new dwellings which will in turn, over a certain time span, mean increased housing investment. Housing investment may increase as a governmental response to need or a private sector response to increased demand. The findings from testing this hypothesis show some strong positive relationships between housing investment and demographic growth, though the four countries responded differently to the various lags used. Many of the equations tested worked well within different countries and suggested that theories of demographic growth and housing investment do generally produce expected results in statistical application. While it was expected that household growth would in theory have a greater effect on housing investment than population growth the findings suggest that this is not the case. One interpretation of the significant but varying relationships between demographic change and housing investment is that the institutional arrangements within a country result in similar demographic changes having different outcomes from country to country. This is further evidence of the need for an integrated approach to explaining housing investment.

The findings from testing the dwelling stock variable in hypothesis four indicate a strong relationship between the size of the existing dwelling stock (per thousand population) and the level of housing investment. This was consistent across the four countries. Theories related to determining future levels of output according to the level of past output and existing stock have not previously been applied to housing investment, but only to manufacturing investment. The findings of this testing suggest that these theories, including the capital stock adjustment model outlined in chapter two, may hold some value for housing investment. However, it may be considered more relevant to the 'need' model that was tested which takes into account demographic and the size of the stock.

The need model may in fact be interpreted as a housing specific modification of the capital stock adjustment theory with the housing stock standing for the 'capital stock' and changes in demand being a function of demographic change.

The findings of the statistical testing are able to suggest whether or not a theory is supported. However, the level of analysis undertaken and limitations of the statistical techniques employed, which have been outlined previously, make it difficult to meaningfully inform economic theory. The statistical analysis has illustrated some significant relationship between

economic and demographic variables with housing investment which do tend to support much of the underlying theory. More detailed testing and more carefully couched models would need to be formulated to comment more conclusively. The examination of the first four hypotheses also highlights problems with using theories that are not specific to housing investment.

The investigation of the effects on housing investment of government and housing policies in hypothesis five introduced a number of underlying concepts and theories. These included the effects on housing investment of the growth and development of the welfare state, different welfare state regime types, different types of housing policy. Rather than offering theories of housing investment many of these provided alternative ways of conceptualising and classifying housing in different countries to enable comparisons. They could, therefore, provide frameworks for investigating differences in housing investment levels. The analysis in chapter five (and to some extent in chapter six) illustrated that some of these concepts can provide useful frameworks for comparisons. In particular differences in housing systems and government attitudes to housing were found between countries and could in some cases be attributed to the comprehensive or supplementary nature of housing policies or to different welfare regime types. Some of these concepts therefore provide useful ordering frameworks. However, even in very general terms it proved difficult to classify each of the four countries within a single concept or 'type'. Many of the features of each of the countries' housing systems were associated with more than one of the classified 'types'. Thus, for example, one country could not be said to have a wholly supplementary or comprehensive housing policy. In addition while the UK seemed to be associated with a liberal welfare regime type and Germany with a corporatist welfare regime type, both France and the Netherlands appeared to have elements of many regime types in their social housing systems. This meant that comparing housing investment levels based just on these categorisations could not be undertaken meaningfully.

What can be said is that some elements associated with different concepts might suggest reasons for a higher or lower level of investment. So, for example, a number of features of corporatist, social democratic or comprehensive housing systems seem to be associated with higher levels of housing investment. These include: more widespread government support for housing, more government support in the housing production process, greater responsibility for housing provision lying with housing institutions and organisations, and, where there is greater mobilisation of affected interests in housing. Some of these factors are seen particularly in France, Germany and Netherlands where housing investment tends to be quite high. On the other hand features of a supplementary housing policy or a liberal regime type, such as; more government support for consumption rather than production, greater direct

government involvement in social housing provision, and a more stigmatised residual role of the social sector, do seem to result in lower levels of housing investment. This is seen, for example, in the UK.

However, it is clear that no one concept for classifying housing in different countries could provide conclusive explanations for differences in housing investment levels. This is mainly because there are so many factors working together that influence housing investment levels. No one conceptual framework appears to cover all of the factors that were discussed in relation to the government and housing policy hypothesis. To make a conceptual framework that is useful for the comparisons being undertaken in this study would mean combining many elements of existing concepts.

The concept of structures of housing provision was used as a starting point to investigate the effect of social housing systems on housing investment in hypothesis six. This concept was again used as an analytical framework to make cross-country comparisons and it did serve as a useful ordering device for the information presented in chapter six. It does by definition encompass a large number of the features of housing systems, institutional arrangements and government policy influences. As such it was able to provide a more useful tool for comparisons than the concepts of supplementary and comprehensive housing systems and welfare regime types, which were shown to be somewhat limiting. Many of the elements compared within the different structures of provision were also able to offer some explanations for housing investment differences. These included, for example, features of social housing finance systems, the different types of housing organisation providing housing and the degree of government control over the housing provision process. Even so a narrowing of Ball's original definition of structures of housing provision was necessary for this study because of the scale of analysis being undertaken.

The adapted definition of structures of provision did, however, prove useful in examining this hypothesis. Of all the concepts discussed in relation to housing investment this one did seem to be more useful in its application to the subject. However, some of the other concepts, such as welfare regime types and supplementary/comprehensive housing policies do have significant links with structures of provision, as discussed in chapter six, and there is, therefore, some value in their application.

There are clearly problems in attempting to explain housing investment through the application of theories and concepts which might not be specifically related to housing investment. However, there has clearly been some value and use in the examination of the hypotheses and theories undertaken in this work. The findings of this work seem to support theories that total

investment, demographic change, the size of the housing stock, government policies, and varying structures of social housing provision all determine housing investment to some extent. More specifically the findings would suggest that there might be significant value in a 'housing capital stock adjustment model', which might not be consistent across countries, but is modified by institutional arrangements and government policies. In addition significant benefit may result from a greater conceptual integration between welfare state theory and the structures of housing provision thesis to provide an explanation for housing investment.

8.6 An integrated approach to comparative housing research

It has been shown that housing investment is determined by a broad range of factors and that it is a combination of these factors that result in certain housing investment outcomes. In analysing this combination of factors it is clear that the methodological approach adopted in this study has been beneficial. The theory discussed in chapter two, and used throughout the study as a framework for the investigation, has facilitated the examination of the broad range of factors that determine housing investment. This can be seen in each of the forms of analysis undertaken. Examination of the three main areas of investigation illustrated in Figure 2.2 (chapter two) has shown the effects of each area A, B and C on housing investment through the different forms of analysis. It has shown the inter-relationships between the three areas which has, in turn, illustrated the combined effect on housing investment, and the value of integrating a number of forms of analysis in this thesis. Each of the areas have made a contribution to the conclusions of this work.

Area 'A' examined the effects of broad national aggregates on housing investment. This was carried out by testing economic theories of investment and housing investment using statistical analysis. The statistical analysis of the broad aggregates that were considered in chapter four established relationships between investment, demographic growth and the size of housing stocks and housing investment. Statistical testing has been useful in establishing the strength of the relationships and the responsiveness of housing investment to these broad national aggregates.

Area 'B' examined the effects of government and policy decisions on housing investment. This utilised a policy-orientated form of analysis which has added considerable scope to the study and value to the conclusions. Theory suggested that classification of different welfare regime types might provide some explanation for housing investment differences. Results have shown that different forms of welfare state development have resulted in different structures of housing provision which may in turn lead to different levels of housing investment.

Government intervention and policy decisions have also been shown to play a significant determining role. This 'government and policy' analysis has been valuable in providing a greater historical and political account of housing investment. It has been able to take into account wider economic and social conditions in each country which have been shown to have important implications for housing investment.

Area 'C' examined systems of social housing using structures of provision analysis. This added a different perspective to the factors that can influence housing investment. Theory suggested that housing systems and processes must be examined (together with political and economic factors) to understand housing provision. Even limiting this section to an examination of social housing systems has shown that structures can have some effect on housing investment levels between countries. Links between the different forms of analysis were shown to be particularly relevant in this section as the analysis in chapters six and seven illustrated important connections between structures and welfare state development between countries. In particular chapter six highlighted how using a structures of provision approach can help in the classification of welfare state regime types and provide a framework for investigating differences in housing investment.

Each method of analysis has clearly contributed to a greater understanding of housing investment determinants. Problems associated with each individual form of analysis mean that using a more integrated approach is beneficial. For example, while the statistical analysis can test whether a relationship exists between a factor and housing investment it cannot determine the more detailed nature of this relationship. The statistical hypothesis testing has highlighted some broad aggregates that have the potential to influence housing investment, but detailed conclusions on the extent of their effect are not always possible. Limits clearly exist then in the degree to which conclusive statements can be made from statistical analysis.

The policy analysis can clearly go further in analysing the combination of factors that determine housing investment, but problems still exist in using this form of analysis to meet the aims of this research. While an historical account of policy and other broader factors such as the state of the economy has given some insight to what determines housing investment over time *within* countries, these factors were shown to have less significance in explaining different levels of housing investment *between* countries.

The structures of provision analysis did, however, make a significant contribution to explaining differences in levels of housing investment between countries. Problems were nevertheless found in using this approach. These included the difficulty in restricting the analysis to one housing sector and measuring social housing investment in four countries. It

was clearly difficult to determine the exact nature of the effects of social housing investment on housing investment when so many factors have to be considered.

Problems are apparent in all of the forms of analysis used. However, limitations that might result from this have been minimised. By adding different elements to the investigation potential gaps in the overall analysis have to some extent been filled. Examining housing investment from a number of different perspectives has also facilitated an awareness of how the different areas A, B and C affect each other and have a 'combined' effect on housing investment. The analysis, particularly in chapter five and chapter seven, has shown, for example, how governments can change structures of social housing provision, how structures of provision are related to the development of the welfare state and how governments' reactions to economic conditions all, indirectly, affect housing investment.

Each of the different methods used to examine housing investment have contributed to a greater understanding of the measure and its determinants. Any one form of analysis would only provide a partial understanding. Integrating different analytical approaches in this way has clearly been beneficial in this comparative investigation of housing investment. It has been an important catalyst to providing a thorough analysis of housing investment determinants. It has the potential to also be applied to other comparative studies in housing research that are examining measured outcomes which might be affected by a broad range of factors.

8.7 Housing investment and comparative housing research: concluding summary

In this comparative investigation of housing investment in four countries several significant contributions have been made to existing knowledge. These relate to the information that has been assembled and presented, the results and conclusions relating to determinants of housing investment and the integrated methodology that has been used in this study. These main findings and contributions are now summarised.

Significant contributions have been made in the course of this thesis in terms of the information that has been assembled and presented which has facilitated analysis. This information includes definitions and discussion of the various indicators used to measure housing investment and social housing investment. To qualify direct comparisons of data between countries detailed investigations of items included were carried out. This meant examining definitions of various indicators of housing investment and social housing investment in France, Germany, the Netherlands and the UK.

In particular, specific items included in GFCF in housing were investigated to explore the comparability of data. In relation to social housing investment, indicators of GFCF or 'volume of money investment' in social housing were compared. A comparison based on this indicator was, however, rejected as significant differences between countries would have been likely to distort estimated levels of social housing investment. Consequently social housing construction data was used as the best available indicator of social housing investment. Definitions of this indicator in different countries were also provided and discussed in relation to different arrangements of the 'social' sector in the four countries. The investigation of these indicators and the discussion of measurement issues where direct comparisons of data are made in this thesis adds considerably to the value of these comparisons. Detailed qualification of cross-national data and information, in this way, is not common and distinguishes this work from other comparative housing research. The presentation of the various sets of data included in this work is also a significant contribution to existing information.

New and significant information has also been presented in chapter six. To enable an investigation of hypothesis six (the effects of structures of social housing provision on housing investment) detailed information on the organisation of social housing systems has been gathered and 'ordered'. This information gathering and presentation has been significant in enabling structured comparisons of social housing systems. The conclusions on the nature of these systems, while not in themselves directly addressing the hypothesis, has provided a new and up-to-date analysis of the differences between countries. In particular the organisational representations of social housing finance systems summarised in Figures 6.1, 6.3, 6.4 and 6.5 make an original and significant contribution.

This research also distinguishes itself from a considerable amount of other comparative housing research in that it aimed to explain a measured outcome.

The results and conclusions of this study show that housing investment is determined by a broad range of factors. These factors include: the broad national aggregates of total investment levels, demographic growth and the size of the housing stock; the historical development of the welfare state, structures and systems of social housing provision, and the institutional arrangements thereof, the role of government in housing - including levels of control, regulation, degree of commitment, the degree of consensus and long term policy decision making, the types and forms of housing policies, economic conditions and economic policies, and other 'external' factors. It is acknowledged that other factors may also determine housing investment. The results of the analysis show that different factors may be responsible for determining housing investment levels *within* different countries and *between* different

countries. Using the results from this study can lead to suggestions for increasing housing investment levels in a country.

In recognising that a broad range of factors determine housing investment, this study has benefited from an integrated methodological approach to comparative housing research. It utilises a number of forms of analysis which allows the investigation of several factors in a complementary way. This form of comparative analysis may have further applications to other studies that investigate a broad range of housing factors. This analysis of housing investment has therefore provided new conclusions on what determines housing investment and contributed to the methodology of comparative housing research.

Bibliography

- Ambrose P. (1990) Housing Policy Formation - What Happens Next?, paper presented at ENHR conference 'Housing debates and urban challenges', July 1990, Paris.
- Ambrose P. (1991) Housing Provision Chain as a Comparative Analytical Framework, **Scandinavian Housing and Planning Research**, Vol 8, pp 91 - 104.
- Ambrose P. and Barlow J. (1986) Housing Provision and House Building in Western Europe: increasing expenditure, declining output? **Working Paper 50**, Urban and Regional Studies, University of Sussex.
- Arblaster L. and Hawtin M. (1994) **Health, Housing and Social Policy : Homes for Wealth or Health**, Socialist Health Association, London.
- Aschauer D. (1989) Is Public Expenditure Productive? **Journal of Monetary Economics**, Vol. 23, pp 177-200.
- Aughton H. and Malpass P. (1994) **Housing Finance: A basic guide**, Shelter, London.
- Back G. and Hamnett C. (1985) State Housing Policy Formation and the Changing Role of Housing Associations in Britain, **Policy and Politics**, Vol 13, No. 4, pp393-411.
- Badcock B. (1984) **Unfairly Structured Cities**, Blackwell, Oxford
- Ball M. (1981) The Development of Capitalism in Housing Provision, **International Journal of Urban and Regional Research**, Vol 5, pp145-177.
- Ball M. (1982) Housing Provision and the Economic Crisis, **Capital and Class**, 17, pp60- 77.
- Ball M. (1986) The Built Environment and the Urban Question, **Environment and Planning D: Society & Space**, Vol. 4, pp447-464.
- Ball M. (1988) Housing Provision and Comparative Housing Research, chapter 1 in Ball M., Harloe M. and Martens M. **Housing and Social Change in Europe and the USA**, Routledge, London, pp7-40.
- Ball M. and Harloe M. (1991) Rhetorical Barriers to Understanding Housing Provision: What the 'Provision Thesis' is and is not, **Housing Studies**, Vol 7, No. 1, pp3-15.
- Ball M., Harloe M. and Martens M. (1988) **Housing and Social Change in Europe and the USA**, Routledge, London.
- Ball M. and Wood A. (1994) Does Building Investment Affect Economic Growth? Some long-run evidence from the UK, **Discussion Paper 8/94**, Birkbeck College, University of London.

- Barlow J. and Duncan S. (1988) The use and abuse of housing tenure, **Housing Studies**, Vol 3, 219-231.
- Barlow J. and Duncan S. (1992) Markets, States and Housing Provision: Four European Growth Regions compared, **Progress in Planning**, vol.38, pp93-177, Pergamon Press.
- Barlow J. and Duncan S. (1994) **Success and Failure in Housing Provision: European Systems Compared**, Pergamon, Oxford.
- Barre R. (1975) **Étude d'une réforme du financement du logement**, La Documentation Française, Paris.
- BIPE (1991) **Les Aides Publiques au Logement en Europe**, Direction de la Construction, Ministère de l'Équipement, du Logement, des Transports et de l'Espace, Paris.
- Black J. (1982) **The Economics of Modern Britain : An Introduction to Macroeconomics**, Robertson, Oxford.
- Boelhouwer P. and Priemus H. (1990) Dutch Housing Policy Realigned, **Netherlands Journal of Housing and Environmental Research**, 5(1), 105-119.
- Boelhouwer P.J. and van der Heijden H.M.H. (1992) **Housing Systems in Europe, Part I, A Comparative Study of Housing Policy**, Delft University Press, Delft.
- Boucher, F. (1988) Chapter 10 in, Kroes, H., Ymkers, F. and Mulder, A., **Between Owner Occupation and the Rented Sector: Housing in Ten European Countries**, NCIV, De Bilt, pp.287-349.
- Bovy C. (1989) **Social housing policy, the Netherlands**, Housing Commission Document, COFACE, Brussels.
- Bramley G. (1990) **Bridging the affordability gap**, School of Advanced Urban Studies, University of Bristol.
- Bramley G. (1993) The enabling role for local authorities: a preliminary evaluation, chapter in **Implementing Housing Policy**, (ed P. Malpass and R. Means), Open University Press, Buckingham, pp.127-149.
- Brittan S. (1977) **The Economic Consequences of Democracy**, Temple Smith, London.
- Bundesministerium (1990) **Wohnungspolitik nach dem 2. Weltkrieg**, Bundesministerium für Raumordnung, Bauwesen und Städtebau, Bonn.
- Bundesministerium (1992) **Wohngeld und Mietbericht 1991**, Bundesministerium für Raumordnung, Bauwesen und Städtebau, Bonn.
- Burns L.S. and Grebler L. (1977) **The Housing of Nations**, MacMillan, London.

- Butlin (1964) **Investment in Australian Economic Development 1861 - 1900**, Cambridge University Press.
- CBS (1992) **Statistical Yearbook 1992**, Netherlands Central Bureau of Statistics, The Hague.
- Castells M. (1977) **The Urban Question: a Marxist Approach**, Routledge, London.
- Catinat M., et al (1987) **The Determinants of Investment**, **European Economy Annual Economic Report 31**, March.
- Cole I. and Furbey R. (1994) **The eclipse of council housing**, Routledge, London.
- Danermark B. and Elander I. (1994) **Social Rented Housing in Europe: Policy, Tenure and Design**, Delft University Press, Delft.
- Day L. (1978) Government pensions for the aged in 19 industrialised countries, in R. Tomasson (ed), **Comparative Studies in Sociology**, JAI Press, Greenwich, Connecticut.
- De Long J.B. and Summers L.H. (1991) Equipment Investment and Economic Growth, **Quarterly Journal of Economics**, Vol. 106, pp445-502.
- Dickens P., Duncan S., Goodwin M. and Gray F. (1985) **Housing, States and Localities**, Methuen, London.
- DOE (1982) **Housing and Construction Statistics in Great Britain**, HMSO, London.
- DOE (1993) **Housing and Construction Statistics in Great Britain**, HMSO, London.
- Donnison D. and Ungerson C. (1982) **Housing Policy**, Penguin Books Ltd, London.
- Duvigneau H.J. and Schönefeldt L. (1989) **Social housing policy, Federal Republic of Germany**, Housing Commission Document, COFACE, Brussels.
- Easton W.W. (1990) The Interest Rate Mechanism in the UK and Overseas, **Bank of England Quarterly Bulletin**, 30, 2, May.
- Eekhoff J. (1989) Wohnungspolitik für die neunziger Jahre: Muss der Staat wieder Verstärkt eingreifen?, **Gemeinnütziges Wohnungswesen**, 7/1989, 371-378.
- Emms P. (1990) **Social Housing. A European Dilemma?** School for Advanced Urban Studies, University of Bristol.
- Esping-Anderson G. (1985) **Politics against Markets, The Social Democratic Road to Power**, Princeton, NJ, Princeton University Press.

- Esping-Anderson G. (1990) **The Three Worlds of Welfare Capitalism**, Oxford, Polity Press, Blackwell.
- European Commission (1993) **Statistics on housing in the European Community**, E.C., Brussels.
- European Commission (1994) **Statistics on housing in the European Union**, E.C., Brussels.
- Eurostat (1992) **Basic Statistics of the Community**, Office for Official Publications of the European Community, Luxembourg.
- Flora P. and Heidenheimer A.J. **The Development of Welfare States in Europe and America**, Transactions Books, New Brunswick.
- Ford R. and Poret P. (1990) **Business Investment in the OECD Economies: Recent Performance and Some Implications for Policy**, **OECD Working paper 88**.
- Forrest R. and Murie A. (1986) **Marginalisation and Subsidised Individualism: the sale of council houses in the restructuring of the British Welfare State**, **International Journal of Urban and Regional Research**, 10, 1, 1986, pp46-65.
- French Housing Ministry (1992) **Statistiques de la construction en 1992**, Direction des Affaires Économiques et Internationales, Ministère du Logement, Paris.
- French Housing Ministry (1993) **Le Logement en France**, Direction de l'Habitat et de la Construction, Ministère du Logement, Paris.
- French Housing Ministry (1994a) **Le compte du logement: Tableaux statistiques, 1984-1992**, Direction de L'Habitat et de la Construction, Ministère du Logement, Paris.
- French Housing Ministry (1994b) **Le compte du logement; Rapport à la Commission des Comptes du Logement**, Direction des Affaires Économiques et Internationales, Ministère du Logement, Paris.
- German Housing Ministry (1993) **Haus und Wohnung: Im Spiegel der Statistik 1993**, Bundesministerium, Bonn
- German Housing Ministry (1994) **Haus und Wohnung: Im Spiegel der Statistik 1994**, Bundesministerium, Bonn
- Ghékiere L. (1993) **Patrimoines locatifs sociaux: politiques de vente comparées des Etats de la CEE**, in, **Maastricht: Enjeux pour le mouvement HLM**, UNFOHLM, Paris.
- Ghékiere L. (1994) **Observatory on European Social Housing, report 1st Quarter 1994**, UNFOHLM, Paris.
- Golland A. (1995) **House Prices, Land Prices and Building Costs in the U.K., Netherlands and Germany**, **Working Paper**, De Montfort University, Leicester.

- Gottlieb M. (1976) **Long Swings in Urban Development**, New York.
- Gough I. (1979) **The Political Economy of the Welfare State**, MacMillan, London.
- Griffiths A. and Wall S. (1993) **Applied Economics: An Introductory Course**, fifth edition, Longman, London.
- Habermas J. (1976) **Legitimation Crisis**, (trans. T. McCarthy), Heinemann, London.
- Hague R., Harrop M. and Breslin S. (1987) **Comparative Government and Politics: An Introduction**, Third Edition, MacMillan, London.
- Hallett G. (1988) **Land and Housing Policies in Europe and the USA: A Comparative Analysis**, Routledge, London.
- Hallett G. (1993) **The New Housing Shortage: Housing Affordability in Europe and the USA**, Routledge, London.
- Hancock K. (1993) Can Pay? Won't Pay? or Economic Principles of 'Affordability', **Urban Studies**, vol.30, no.1, pp127-145.
- Harloe M. (1980) Housing and the state: recent British developments, chapter 2 in Ungerson C. and Karn V. **The Consumer Experience of Housing: cross-national perspectives**, Gower, Farnborough.
- Harloe M. (1985) **Private Rented Housing in the United States and Europe**, Croom Helm, London.
- Harloe M. (1988) The changing role of social rented housing, chapter in Ball M., Harloe M. and Martens M., **Housing and Social Change in Europe and the USA**, Routledge, London, pp.41-86.
- Harloe M. (1995) **The Peoples Home: Social Rented Housing in Europe and America**, Routledge, London.
- Harloe M. and Martens M. (1984) Comparative Housing Research, **Journal of Social Policy**, 13, 3, pp255-277.
- Harloe M. and Martens M. (1985) The Restructuring of Housing Provision in Britain and the Netherlands, **Environment and Planning A**, Vol. 17, pp1063-1087.
- Harvey D. (1976) Labour, capital and class struggle around the built environment in advanced capitalist societies, **Politics and Society**, 6, pp265-295.
- Harvey D. (1978) The Urban Process Under Capitalism: a framework for analysis, **International Journal of Urban and Regional Research**, 2, 1 pp101-131.

- Harvey D. (1989) **The Urban Experience**, Blackwell, Oxford.
- Heidenheimer A.J., Heclo H and Adams C. (1990) **Comparative Public Policy: The politics of social choice in America, Europe and Japan**, third edition, MacMillan, London.
- Hillebrandt P. (1974) **Economic Theory and the Construction Industry**, MacMillan, London.
- Hills J., Hubert F., Tomann H. and Whitehead C. (1990) Shifting subsidies from bricks and mortar to people: experiences in Britain and West Germany, **Housing Studies**, 5(3), pp147-167
- Hirsch J. (1976) 'Remarques theoriques sur l'Etat bourgeois et sa crise' in, N. Poulantzas (ed) **La Crise de l'Etat**, Paris, Presses Universitaires de France, pp105-131.
- HLM Aujourd'hui (1991) **Habitat en Chiffres**, No 22, HLM, Paris.
- Hobsbawm E.J. (1968) **Industry and Empire: An economic history of Britain since 1750**, Weidenfeld and Nicolson, London.
- Holmans A. (1995) **Housing demand and need in England 1991-2011**, Joseph Rowntree Findings 157, Joseph Rowntree Foundation, York.
- Hubert F. (1992) **Risk and Incentives in German Social Housing Finance**, Free University of Berlin, Berlin.
- Hubert F. (1993) **Private Rented Housing in Germany**, report to Scottish Homes, Free University of Berlin, Berlin.
- IMF (1991) **Government Finance Statistics Yearbook 1991**, International Monetary Fund, New York.
- Ineichen B. (1993) **Homes and Health**, E. & F.N. Spon, London.
- INSEE (1992, & various years) **Rapport sur les comptes de la nation**, INSEE, Paris.
- Johnson N. (1987) **The Welfare State in Transition: The theory and practice of welfare pluralism**, Harvester Wheatsheaf, London.
- Karn V. and Wolman H. (1992) **Comparing Housing Systems**, Clarendon Press, Oxford.
- Kemeny J. (1992) **Housing and Social Theory**, Routledge, London.
- Kemeny J. (1995) **From public housing to the social market: Rental policy strategies in comparative perspective**, Routledge, London.
- Kemp P. (1990) Income-related assistance with housing costs: a cross-national comparison, **Urban Studies**, 27(6), pp795-908.

- Kennedy M. (1986) Chapter 1 in, Prest A.R. **The UK Economy: a manual of applied economics**, Wiedenfeld and Nicolson, London.
- King A. (1975) Overload: Problems of Governing in the 1970s, **Political Studies**, vol.23, no. 2&3.
- Kleinman M., Eastall R. and Roberts E. (1990) What determines Local Authorities' Capital Expenditure on Housing? An Evaluation of Various Models, **Urban Studies**, Vol 27, No. 3, 401-419.
- Kleinman M. (1992) Policy Responses to Changing Housing Markets: Towards a European Housing Policy? **Welfare State Programme Discussion Paper 73**, LSE, London.
- Kleinman M. (1995) Meeting housing needs through the market: an assessment of housing policies and the supply/demand balance in France and Great Britain, **Housing Studies**, 10(1), pp17-38.
- Kohl J. (1981) Trends and Problems in Post-war Public Expenditure Development in Western Europe and North America, paper in Flora P. and Heidenheimer A.J. **The Development of Welfare States in Europe and America**, Transaction Books, New Brunswick, pp307-308.
- Korpi W. (1978) **The Working Class in Welfare Capitalism**, Routledge, London.
- Korpi W. (1987) Power, Politics and State Autonomy in the Development of Social Citizenship: Social Rights During Sickness in 18 OECD Countries, Swedish Institute for Social Research (mimeo), Stockholm.
- Krätke S. (1989) The future of social housing - problems and prospects of 'social ownership': The case of West Germany, **International Journal of Urban and Regional Research**, 1989, 282-303.
- Kroes H., Ymkers F. and Mulder A. (1988) **Between Owner Occupation and the Rented Sector, Housing in ten European countries**, NCIV, De Bilt.
- Kuznets S. (1973) **Population, Capital and Growth: Selected Essays**, Heinemann, London.
- Lefebvre, B. (1992) Housing in France: The consequences of ten years of deregulation, paper presented at **ENHR Housing Finance Group meeting 1992**, The Hague.
- Lojkin J. (1976) 'Contribution to a Marxist theory of capitalist urbanisation' in, C. Pickvance (ed), **Urban Sociology Critical Essays**, Tavistock Publications, Andover, pp119-146.
- Lundqvist L.J. (1992) **Dislodging the Welfare State? Housing and Privatisation in Four European Nations**, Delft University Press, Delft.
- MacLennan D. (1982) **Housing Economics, an applied approach**, Longman, London.

- McCrone G. and Stephens M. (1995) **Housing Policy in Britain and Europe**, UCL Press, London
- Malpass P. and Murie A. (1990) **Housing policy and practice**, third edition, MacMillan, Basingstoke.
- Marchal J. (1989) **Social housing policy, France**, Housing Commission Document, COFACE, Brussels
- Martens M. (1985) Owner-occupation in Europe: post-war developments and current dilemmas, **Environment and Planning A**, 17, pp605-624.
- Miliband R. (1969) **The State in Capitalist Society**, Weidenfeld and Nicolson, London.
- Merrett S. (1979) **State housing in Britain**, Routledge, London.
- Murie A. (1994) Public Rented Housing in Britain, chapter 5 in Danermark B. and Elander I., **Social Rented Housing in Europe: Policy, Tenure and Design**, Delft University Press, Delft.
- Myles J. (1984) **Old Age in the Welfare State**, Little Brown, Boston.
- Netherlands Ministry of Housing and Physical Planning (1989) **Summary of Policy Document on Housing in the Nineties**, MVRM, The Hague.
- Netherlands Ministry of Housing and Physical Planning (1993) **Housing in the Netherlands, Country Monograph**, MVRM, The Hague.
- Netherlands Ministry of Housing and Physical Planning (1994) Information provided by R. Ligterink, MVRM, The Hague
- Nora S. and Eveno B. (1975) **L'Amélioration de l'habitat ancien**, La Documentation Française, Paris.
- Norton A. and Novy K. (1991) **Low Income Housing in Britain and Germany**, Anglo-German Foundation for the Study of Industrial Society, London.
- Norusis M.J./SPSS Inc. (1992) **SPSS/PC+ Base System User's Guide Version 5.0**, SPSS Inc., Chicago.
- NWR (1995) **Social housing sector report**, Nationale Woningraad, Almere.
- O'Connor J. (1973) **The Fiscal Crisis of the State**, St. Martins Press, New York.
- OECD (1983) **National Accounts Detailed Tables**, OECD, Paris.
- OECD (1992) **National Accounts Detailed Tables**, OECD, Paris.

OECD (1993) Economic Outlook, OECD, Paris.

Offe C. (1984) Contradictions of the Welfare State, Hutchinson, London.

Oxley M. (1989) Housing Policy: Comparing International Comparisons, Housing Studies, Vol 4, No. 2, pp128-132.

Oxley M. (1991) The Aims and Methods of Comparative Housing Research, Scandinavian Housing and Planning Research, Vol. 8, 67-77.

Oxley M. and Smith J. (1993) Housing Investment in the UK: A European Comparison, European Housing Research Working Paper 1, De Montfort University, Milton Keynes.

Oxley M. and Smith J. (1995a) A European Perspective of Housing Investment in the UK, report to Avebury International, De Montfort University, Leicester.

Oxley M. and Smith J. (1995b) Housing investment, macro-economics and demographics in Europe, Netherlands Journal of Housing and the Built Environment, vol 10, no.3, pp187-207.

Oxley M. and Smith J. (1996) Housing Policy and Rented Housing in Europe, E & FN Spon, London.

Panic M. and Vernon K. (1975) Major factors behind investment decisions in British manufacturing industry, Oxford Bulletin of Economics and Statistics, 37, 3, August.

Papa O. (1992) Housing Systems in Europe Part II: A Comparative Study of Housing Finance, Delft University Press, Delft.

Parry Lewis J. (1965) Building Cycles and Britains Growth, MacMillan, London.

Power A. (1993)hovels to High Rise: State Housing in Europe since 1850, Routledge, London.

Priemus H. (1990a) Housing: Changing roles of Government, keynote speech, ENHR conference 'Housing debates and urban challenges', July 1990, Paris.

Priemus H. (1990b) Changes in the social rented sector in The Netherlands and the role of housing policy, paper presented at ENHR conference 'Housing debates and urban challenges', July 1990, Paris.

Priemus, H. (1995) How to abolish social housing? The Dutch case, International Journal of Urban and Regional Research, 19(1), 145-155.

Priemus H., Kleinman M., MacLennan D. and Turner B. (1994) Maastricht Treaty: Consequences for National Housing Policies, Housing Studies, 9(2), 163-182.

- Rimlinger G.V. (1971) **Welfare Policy and Industrialisation in Europe, America and Russia**, John Wiley, New York.
- Rose R. (1984) **Understanding Big Government**, Sage, London.
- Ruonavaara, H. (1993) Types and forms of housing tenure: towards solving the comparison/translation problem, **Scandinavian Housing and Planning Research**, 8, p.67-77.
- Salvatore D. (1982) **Theory and Problems of Statistics and Econometrics**, McGraw-Hill, New York.
- Schmidt S. (1989) Convergence theory, labour movements and corporatism: the case of housing, **Scandinavian Housing and Planning Research**, 6, pp83-101.
- Scottish Homes (1994) The public sector in Scotland, **Scottish Homes Working Paper**, Scottish Homes, Edinburgh.
- Skocpol T. (1985) Bringing the state back in: Strategies of Analysis in Current Research, in, Evans P.B., Rueschmeyer D. and Skocpol T. (eds), **Bringing the State Back In**, Cambridge University Press, New York, pp3-43.
- Smith J. (1994) Social housing provision and investment: The role of the state, paper presented at **ENHR conference Housing: Making the Connections**, Glasgow, September 1994.
- Somerville P. (1994) On explanations of housing policy, **Scandinavian Housing and Planning Research**, 11, pp211-230.
- Stafford D.C. (1978) **The Economics of Housing Policy**, Croom Helm, London.
- Statistisches Bundesamt (1993) Bewilligungen im sozialen Wohnungsbau, **Bautätigkeit und Wohnungen**, Fachserie 5, Reihe 2, Wiesbaden.
- Therborn G. (1983) When, how and why does a welfare state become a welfare state?, Paper presented at the **ECPR Workshops**, Freiburg (March).
- Titmuss R. (1958) **Essays on the Welfare State**, Allen and Unwin, London.
- Tomann H. (1990) Housing in West Germany, in **Affordable Housing in Europe**, (eds D. MacLennan and R. Williams), Joseph Rowntree Foundation, York.
- Turner P. (1989) Investment: Theory and Evidence, **Economic Review** 6, 3.
- United Nations (1993 & various years) **Annual Bulletin of Housing and Building Statistics**, United Nations Economic Commission for Europe, Geneva.

- Van Giessen M. (1983) **Frankrijk: Op weg naar nationalisatie en socialisatie?**, NCIV, De Bilt.
- Van der Schaar J. (1987) **Groei en bloei van het Nederlandse volkshuisvestingsbeleid**, Delft University Press, Delft.
- Wetherill G.B. (1986) **Regression analysis with applications**, Chapman and Hall, London.
- Whitehead C. (1991) From need to affordability: An analysis of UK housing objectives, **Urban Studies**, Vol.28, no.6, pp871-887.
- Whitehead C. and Kleinman M. (1992) **A Review of Housing Needs Assessment**, LSE Housing, LSE. London.
- Wilcox S. (1993) **Housing Finance Review, 1993**, Joseph Rowntree Foundation, York.
- Wilensky H. (1975) **The Welfare State and Equality: Structural and Ideological Roots of Public Expenditures**, University of California Press, Berkeley.
- Williams, P. (1994) The housing market in Northern Ireland in 1993, **Housing Finance**, 22(5), 30-37.
- Wollman H. and Jaedicke W. (1989) The Rise and Fall of Public and Social Housing, **TESG**, 80, No.2, pp82-88.
- World Bank (1991) **World Tables 1991**, World Bank, New York.

APPENDIX 1: DATA SETS USED IN STATISTICAL ANALYSIS

DWELLINGS COMPLETED PER 1000 INHABITANTS

INDICATOR 'D'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	6.6	9.3	7.8	9.1
1971	6.7	9.5	9.1	10.4
1972	6.1	10.9	10.7	11.5
1973	5.6	9.9	11.5	11.6
1974	5.2	9.5	9.7	10.9
1975	5.9	9.7	7.1	8.9
1976	6.0	8.5	6.4	7.9
1977	5.8	8.5	6.7	8.1
1978	5.4	8.4	6.0	7.7
1979	4.7	7.5	5.8	6.3
1980	4.5	7.0	6.3	8.2
1981	3.6	7.2	5.9	8.2
1982	3.5	6.2	5.6	8.8
1983	3.9	6.8	5.5	8.0
1984	4.1	6.3	6.5	8.0
1985	3.8	5.6	5.1	7.0
1986	3.9	5.3	4.1	7.5
1987	4.0	5.4	3.6	7.9
1988	4.4	7.4	3.4	8.3

DWELLINGS COMPLETED PER 1000 INHABITANTS

INDICATOR 'D'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	4.0	6.0	3.8	7.7
1990	3.6	5.4	4.1	6.8
1991	3.5	5.4	4.9	5.5
1992	3.1	4.9	5.8	5.9
.

Number of cases read = 24 Number of cases listed = 24

GFCF IN HOUSING AS A PERCENTAGE OF GDP
INDICATOR 'H'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	3.2	6.9	5.4	5.3
1971	3.4	6.7	5.9	5.7
1972	3.6	6.9	6.5	6.4
1973	3.8	7.2	6.3	6.3
1974	3.9	7.7	6.2	5.5
1975	4.1	7.5	5.7	5.1
1976	3.8	7.1	5.8	5.0
1977	3.3	6.8	5.8	5.8
1978	3.3	6.3	5.9	6.0
1979	2.9	6.3	6.3	5.8
1980	3.8	7.4	7.1	6.2
1981	3.2	6.0	6.5	5.7
1982	3.4	5.5	6.2	5.3
1983	3.4	5.2	6.4	5.1
1984	3.7	4.8	6.4	5.0
1985	3.4	5.4	5.6	4.9
1986	3.5	5.2	5.3	4.9
1987	3.7	5.1	5.2	5.1
1988	4.0	5.2	5.2	5.7

GFCF IN HOUSING AS A PERCENTAGE OF GDP
INDICATOR 'H'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	3.9	5.1	5.3	5.5
1990	3.6	5.1	5.6	5.2
1991	2.9	5.0	5.8	4.7
1992	2.7	4.9	6.1	4.7
.

Number of cases read = 24 Number of cases listed = 24

NET ADDITIONS TO STOCK PER 1000 INHABITANTS
INDICATOR 'N'

YEAR	UK	GERMANY	NLANDS
1970	4.53	7.44	7.63
1971	4.40	8.52	9.01
1972	3.96	10.17	10.20
1973	3.75	10.99	10.51
1974	3.84	9.25	9.50
1975	4.47	6.60	7.80
1976	4.65	5.94	6.75
1977	4.62	6.24	7.08
1978	4.40	5.52	6.74
1979	3.76	5.41	5.24
1980	3.68	5.94	7.16
1981	2.77	5.54	7.26
1982	2.82	5.33	7.94
1983	3.29	5.25	7.02
1984	3.42	6.23	7.33
1985	3.38	4.89	6.44
1986	3.47	3.87	6.77
1987	3.32	3.35	7.24
1988	3.29	.	7.48

NET ADDITIONS TO STOCK PER 1000 INHABITANTS
INDICATOR 'N'

YEAR	UK	GERMANY	NLANDS
1989	3.72	.	6.95
1990	2.89	3.80	6.05
1991	.	.	4.88
1992	2.86	4.95	5.21
.	.	.	.

Number of cases read = 24 Number of cases listed = 24

GFCF AS A PERCENTAGE OF GDP
INDICATOR 'I'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	18.5	25.8	26.4	25.7
1971	18.4	25.7	26.6	25.8
1972	18.4	23.7	25.9	23.7
1973	19.6	23.8	24.5	23.0
1974	20.4	24.3	21.9	21.8
1975	19.6	23.3	20.7	20.8
1976	19.0	23.3	20.7	19.2
1977	18.0	22.2	20.7	21.0
1978	18.1	21.4	21.3	21.5
1979	17.8	21.3	22.7	21.7
1980	18.0	23.0	22.7	21.0
1981	15.8	21.2	22.0	19.0
1982	16.4	20.8	20.5	18.2
1983	16.2	19.8	20.5	18.2
1984	17.4	19.0	20.1	18.5
1985	17.0	19.3	19.7	19.2
1986	16.9	19.2	19.5	20.1
1987	17.6	19.5	19.5	20.3
1988	19.0	20.1	19.9	21.3

GFCF AS A PERCENTAGE OF GDP
INDICATOR 'I'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	19.9	20.8	20.3	21.7
1990	19.3	21.4	21.0	21.3
1991	16.7	20.9	21.6	20.8
1992	15.4	20.0	21.5	20.9
.

Number of cases read = 24 Number of cases listed = 24

ANNUAL GROWTH OF GDP
INDICATOR 'g'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	2.3	5.7	5.0	5.7
1971	2.0	4.8	3.0	4.2
1972	3.5	4.4	4.3	3.3
1973	7.1	5.4	4.8	4.7
1974	-1.5	3.1	.1	4.0
1975	-.7	-.3	-1.3	-.1
1976	2.7	4.2	5.5	4.8
1977	2.3	3.2	2.6	2.6
1978	3.6	3.4	3.4	2.4
1979	2.6	3.2	4.0	2.3
1980	-1.7	1.6	1.0	.9
1981	-1.0	1.2	.1	-.7
1982	1.5	2.5	-1.1	-1.4
1983	3.5	.7	1.9	1.4
1984	2.2	1.3	3.1	3.2
1985	3.6	1.9	1.8	2.6
1986	3.9	2.5	2.2	2.0
1987	4.8	2.3	1.5	.8
1988	4.3	4.5	3.7	2.7

ANNUAL GROWTH OF GDP
INDICATOR 'g'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	2.3	4.1	3.8	4.2
1990	1.0	2.2	4.5	3.9
1991	-2.2	1.3	3.1	2.0
1992	.	.	.	.
.

Number of cases read = 24 Number of cases listed = 24

PROPORTIONAL ANNUAL CHANGE IN GDP PER HEAD
INDICATOR 'g+'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	.	.	.	.
1971	.	.	.	.
1972	3.90	3.83	3.22	3.03
1973	2.70	3.25	2.55	3.09
1974	1.39	1.91	.99	1.95
1975	.07	1.76	1.57	2.13
1976	1.44	2.10	2.62	1.66
1977	2.91	3.31	3.98	2.58
1978	2.94	2.88	3.47	1.73
1979	1.31	2.14	2.69	1.19
1980	-.33	1.39	1.67	.10
1981	-.66	1.10	.13	-1.04
1982	1.37	.89	.40	-.71
1983	2.47	1.05	1.50	.61
1984	2.93	.94	2.43	1.97
1985	2.94	1.51	2.59	2.06
1986	3.77	1.64	2.06	1.24
1987	4.13	2.21	2.35	1.19
1988	3.52	2.62	2.36	1.84

PROPORTIONAL ANNUAL CHANGE IN GDP PER HEAD
INDICATOR 'g+'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989
1990
1991
1992
.

Number of cases read = 24 Number of cases listed = 24

INDICATOR 'n'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	.	.	.	.
1971	.	.	.	.
1972	.	.	.	.
1973	.	.	.	.
1974	1.09	3.32	2.31	3.88
1975	.53	2.83	.89	3.58
1976	.21	2.34	-.23	3.34
1977	-.06	1.97	-.93	3.10
1978	-.10	1.75	-1.17	2.93
1979	.02	1.72	-.76	2.72
1980	.20	1.84	.06	2.73
1981	.29	1.95	.46	2.82
1982	.23	2.09	.51	2.66
1983	.19	2.17	.10	2.34
1984	.23	2.13	-.64	1.94
1985	.47	2.03	-1.07	1.71
1986	.81	1.94	-.93	1.81
1987	1.03	1.92	-.56	2.07
1988	1.07	1.98	.45	2.33

INDICATOR 'n'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	1.09	2.06	1.70	2.47
1990	1.14	2.14	3.58	2.60
1991	.77	2.20	4.84	2.73
1992	.	.	.	.
.

Number of cases read = 24 Number of cases listed = 24

PROPORTIONATE CHANGE IN NO. HOUSEHOLDS (TWO YEAR LAG)
INDICATOR 'n+'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	.	.	.	.
1971	.	.	.	.
1972	.94	2.91	4.56	5.64
1973	.93	2.87	1.67	5.94
1974	.93	3.21	2.86	5.77
1975	.92	3.55	2.10	5.16
1976	.92	3.48	1.23	4.63
1977	.91	3.42	1.87	4.19
1978	.91	3.37	1.16	3.84
1979	.91	2.39	1.33	3.35
1980	.90	1.44	2.44	3.45
1981	.90	1.43	2.51	3.91
1982	1.32	2.42	2.12	4.65
1983	1.74	3.39	2.31	5.17
1984	1.72	3.33	2.71	4.87
1985	1.71	3.28	2.68	4.58
1986	1.69	3.22	2.75	3.95
1987	2.90	3.75	2.42	3.58
1988	3.56	3.04	2.48	3.92

PROPORTIONATE CHANGE IN NO. HOUSEHOLDS (TWO YEAR LAG)
INDICATOR 'n+'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	2.98	1.78	2.91	3.60
1990	.13	1.18	2.82	2.98
1991	.45	4.01	2.84	2.68
1992	.	7.41	3.08	.
.

Number of cases read = 24 Number of cases listed = 24

PROPORTIONATE CHANGE IN NO. HOUSEHOLDS (FOUR YEAR LAG)
INDICATOR 'n*'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	.	.	.	.
1971	.	.	.	.
1972	.	.	.	.
1973	.	.	.	.
1974	1.87	6.21	7.55	11.74
1975	1.86	6.52	3.81	11.41
1976	1.85	6.81	4.13	10.66
1977	1.85	7.09	4.01	9.57
1978	1.84	6.97	2.41	8.64
1979	1.83	5.89	3.22	7.67
1980	1.82	4.86	3.63	7.42
1981	1.81	3.85	3.87	7.39
1982	2.23	3.89	4.60	8.27
1983	2.65	4.87	4.87	9.29
1984	3.07	5.83	4.89	9.75
1985	3.48	6.78	5.05	9.99
1986	3.45	6.66	5.54	9.01
1987	4.66	7.15	5.16	8.33
1988	5.32	6.36	5.30	8.03

PROPORTIONATE CHANGE IN NO. HOUSEHOLDS (FOUR YEAR LAG)
INDICATOR 'n*'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	5.97	5.59	5.41	7.31
1990	3.70	4.25	5.37	7.02
1991	3.44	5.86	5.84	6.38
1992	.	8.68	5.98	.
.

Number of cases read = 24 Number of cases listed = 24

NUMBER OF DWELLINGS IN HOUSING STOCK PER 1000 POPULATION
INDICATOR 'S'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	346.0	320.4	341.3	288.8
1971	349.0	333.5	346.9	294.5
1972	352.0	346.6	355.2	302.1
1973	355.0	359.7	365.1	310.1
1974	359.0	372.8	374.8	317.3
1975	364.0	385.9	383.0	322.4
1976	369.0	399.0	390.0	324.0
1977	374.0	408.2	397.0	329.0
1978	378.0	417.5	405.0	334.0
1979	382.0	426.7	407.0	337.0
1980	382.3	436.0	412.7	342.9
1981	388.0	436.5	418.0	348.0
1982	388.0	437.0	423.0	354.0
1983	391.0	443.3	430.0	361.0
1984	394.0	446.6	438.0	367.0
1985	396.0	448.8	442.6	364.9
1986	399.0	451.1	447.5	376.6
1987	402.0	453.5	430.0	381.3
1988	402.3	455.9	.	385.0

NUMBER OF DWELLINGS IN HOUSING STOCK PER 1000 POPULATION
INDICATOR 'S'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	406.0	460.0	424.0	385.0
1990	408.0	463.0	422.0	390.0
1991	411.0	465.0	426.0	393.0
1992	.	.	.	.
.

Number of cases read = 24 Number of cases listed = 24

PROPORTIONATE CHANGE IN NO. H'HOLDS (TWO YR LAG ON 'n+')
INDICATOR 'n0'

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	.	.	.	.
1971	.	.	.	.
1972	.	.	.	.
1973	.	.	.	.
1974	.94	2.91	4.56	5.64
1975	.93	2.87	1.67	5.94
1976	.93	3.21	2.86	5.77
1977	.92	3.55	2.10	5.16
1978	.92	3.48	1.23	4.63
1979	.91	3.42	1.87	4.19
1980	.91	3.37	1.16	3.84
1981	.91	2.39	1.33	3.35
1982	.90	1.44	2.44	3.45
1983	.90	1.43	2.51	3.91
1984	1.32	2.42	2.12	4.65
1985	1.74	3.39	2.31	5.17
1986	1.72	3.33	2.71	4.87
1987	1.71	3.28	2.68	4.58
1988	1.69	3.22	2.75	3.95

PROPORTIONATE CHANGE IN NO. H'HOLDS (TWO YR LAG ON 'n+')
INDICATOR 'n0'

YEAR	UK	FRANCE	GERMANY	NLANDS
1989	2.90	3.75	2.42	3.58
1990	3.56	3.04	2.48	3.92
1991	2.98	1.78	2.91	3.60
1992	.13	1.18	2.82	2.98
.	.45	4.01	2.84	2.68

Number of cases read = 24 Number of cases listed = 24

GOVERNMENT EXPENDITURE ON HOUSING AS A PERCENTAGE OF GDP

YEAR	UK	FRANCE	GERMANY	NLANDS
1970	.	.	.040	.
1971	.	.	.036	.
1972	.559	.	.063	.
1973	.862	.	.056	.
1974	1.202	.	.060	.796
1975	1.362	1.157	.073	.986
1976	1.547	1.121	.127	1.127
1977	2.065	1.056	.123	1.320
1978	1.587	1.044	.105	1.403
1979	1.524	.	.126	1.456
1980	1.281	.	.	1.443
1981	1.001	1.311	.125	1.621
1982	.870	1.461	.106	1.681
1983	.712	1.475	.096	2.052
1984	.731	.468	.096	2.348
1985	1.027	.479	.090	2.425
1986	1.065	.637	.120	2.321
1987	1.172	.581	.102	2.484
1988	1.026	.599	.102	2.518
1989	1.109	.	.	2.331

GOVERNMENT EXPENDITURE ON HOUSING AS A PERCENTAGE OF GDP

YEAR	UK	FRANCE	GERMANY	NLANDS
1990
1991
1992
.

Number of cases read = 24 Number of cases listed = 24

APPENDIX 2: LIST OF RELATED PUBLICATIONS

List of related publications

The research undertaken for this thesis is related to a wider project on Housing Investment in Europe which was sponsored by Avebury International, Milton Keynes between 1992 and 1995. A number of working papers, articles and conference papers have been produced during this time and in early 1996 that relate to the work in this thesis and the wider research project. These are listed below.

Housing Investment in the UK: A European Comparison, Working Paper No. 1, De Montfort University, Milton Keynes, 1993 (with M.J. Oxley).

Social Housing in the European Community, Working Paper No. 2, De Montfort University, Milton Keynes, 1993 (with M.J. Oxley).

Private Rented Housing in the European Community, Working Paper No. 3, De Montfort University, Milton Keynes, 1993 (with M.J. Oxley).

Housing Affordability in the European Community, Working Paper No. 4, De Montfort University, Milton Keynes, 1993 (with M.J. Oxley).

'Housing investment in Europe' **Housing**, April 1993, (with M.J. Oxley)

'Languishing in Europe's shadow', **Housing**, June 1993 (with M.J. Oxley).

'UK at bottom of housing investment league', **Voluntary Housing**, June 1993.

'UK housing investment lowest in Europe', **Housing and Town Planning Review**, July 1993.

'Financing Social Housing in Europe', **Housing Finance International**, March 1993 (with M.J. Oxley).

'A Continental Shift on Private Rented Housing', **Housing**, February 1994, p17 (with M.J. Oxley).

'UK Rent Rises 'the highest in Europe'', **Housing**, April 1994 (with M.J. Oxley).

'Investment in Private Rented Housing: A European Perspective', **Property Review**, Vol. 3, No 3, April 1994 (with M.J. Oxley).

'Housing Affordability: European Comparisons', **Housing Review**, Vol. 43, No 4, July-August 1994 (with M.J. Oxley).

'Social Housing in Europe: Problems without frontiers', **Voluntary Housing**, September 1994 (with M.J. Oxley)

'Weak links between growth and housing', **Housing**, February 1995 (with M.J. Oxley)

Differences in Housing Investment in the European Union: Some explanatory factors?, Working Paper No. 6, De Montfort University, Milton Keynes 1994 (with M.J. Oxley)

'Social housing provision and investment: the role of the state', paper presented at ENHR conference 'Housing: making the connections', Glasgow, September 1994.

'Social Housing Provision and Investment: A European comparison', paper presented at ENHR Young Housing Researchers conference, Vienna, May 1995.

'Housing investment, macro-economics and demographics in Europe', Netherlands Journal of Housing and the Built Environment, vol.10, no.3, 1995, pp187-207 (with M.J. Oxley).

'European housing analysis, social housing finance', Housing, November 1995, p17.

'Housing in the former East Germany', Housing, December 1995/January 1996, p36-37.

'Housing Policy and Rented Housing in Europe', E & FN Spon, London, 1996 (with M.J. Oxley).

'Housing: Levels of Perspective', proceedings of Young Housing Researchers conference Vienna May 1995, University of Amsterdam Press, Amsterdam, 1996 (co-editor with R. Camstra).